



Institutional  
Catalog

2024-2025

ORLANDO BRANCH CAMPUS

8620 South Orange Blossom Trail  
Orlando, Florida 32809

407-888-1111  
[www.mtifl.com](http://www.mtifl.com)

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## MESSAGE FROM THE PRESIDENT

If you, student, have ever dreamed of working in an occupational field with a great future, I invite you to study at Mech Tech.

Since 1984 our Institution has maintained a clear sense of its mission by providing young people and adults with a technical education of excellence in occupations with a high industrial market demand.

On July 2, 1984, the Institution obtained its Operating License from the Puerto Rico Department of Education (General Education Council). On August 18, 1990, Mech-Tech obtained its initial accreditation by the ACCET Accrediting Commission.

On October 2009, Mech-Tech College started its Health Division where Associate Degrees are offered: Dental Assisting with Expanded Functions, Computer Programming, Office Administration, Management and a Diploma in Practical Nursing.

Our Branch Campus as Mech-Tech Institute in Orlando, Florida commenced operations in April of 2012.

Our curricular guidelines have been designed and reviewed by technical personnel from the public and private sectors, to keep up with actual industry needs.

Our faculty is composed of high-qualified technicians in the occupational fields of metals (Tool and Die Maker), mechanics, electricity, refrigeration and electronics. The academic professors are specialists in the subject matters they teach.

Our sport is Drag Racing, because this sport applies knowledge acquired in all of the programs we offer. Mech-Tech's achievements are known the world over, since our drag racing team has been a winning team nationally and internationally, especially with four-piston and two-rotor vehicles. Champions such as Rafaelito, Eddie Colón, William and Isaías Rojas; among others, are part of the success that Puerto Rico has achieved in these races at a national level; all of them Mech-Tech graduates.

The diploma, which our students obtain, not only enables them to work as technicians, but also prepares them to become intelligent consumers with a positive view of life.

It is a true challenge to study at Mech Tech College and I invite you to join the hundreds of youth and adults who have already defined their goals, by graduating and entering the work force after being hired by industries of great prestige.

We'll be expecting you!

*Edwin J. Colón-Cosme*  
President

## 1.0 HISTORY OF THE INSTITUTION

Mech Tech College is a Higher Education and Technical Institution which mission is to educate and re-educate youths and adults with the competencies necessary to compete for employment opportunities that can emerge in these fields. It received its authorizing operating license in July 1984 and commenced operations in September 1984 in the City of Caguas, Puerto Rico with a group of one hundred and two students in a basic and general education course.

On March 1985, three (3) technical courses began: Electromechanics, Automatic Transmissions and Automotive Mechanics. The following courses were added afterwards: Diesel Mechanics, Automotive Mechanics with Computerized Fuel Injection, Automotive Electromechanics, Automotive Technician, Automotive Mechanics Technician, Industrial Electricity, Industrial Electromechanics, Refrigeration & Air Conditioning, Industrial Electronics, General Mechanics (Turnery) and Tool & Die Maker.

The Institution was founded and developed by two technical education visionaries, who are: Mr. José Colón-Merced, a Vocational and Technical Education Specialist and Mr. Edwin J. Colón-Cosme, a Computer Technology Specialist. At the present time Mr. Edwin Colón holds 100% of the Institution's stocks, which makes him its only owner.

Thanks to the administrative capability and dedication of Mr. Edwin J. Colón, the Institution has managed to expand its facilities to the Cities of Mayagüez, Bayamón and Vega Baja; and in 2009 a new branch in Ponce; this Branch began operations with the Technology in Racing Mechanics programs; the Mayagüez and Bayamón Branch offer all Technical Programs; and the Vega Baja Branch and Caguas Main Campus offer Technical programs and Associate Degree programs. The list with all the programs of study of our Institution is included under Section 2.1 of this Catalog.

On December 2000, The Puerto Rico Council of Higher Education approved the Technology in Marine Mechanics and Technology in Industrial Welding Programs which were approved by ACCET in July and September 2002 respectively. The Technology in Systems Integration (Networks) Program was approved in January 2002 and by ACCET in July 2002 and Automotive Mechanics (48 credits/960 hours) was approved by the Council in June 2002 and by ACCET in September 2002.

The following programs were added to our already extensive list: Automatic Transmissions, approved by ACCET in November 2003; Technology in Automobile Collision Repair, approved by the General Council in June 2003 and by ACCET in October 2003; Microsoft® Computer Systems Specialist, approved by the General Council in May 2005 and by ACCET in June 2005; Motorcycles Repair and Maintenance, approved by the General Council in November 2006 and by ACCET in March 2007; Technology in Racing Mechanics, approved by the General Council in June 2007 and by ACCET in January 2007.

The Puerto Rico Council on Higher Education, in its July 22, 2002 ordinary meeting, decided to grant an Authorization License to offer Programs at an Associate Degree level in the Main Campus in Caguas. The Programs are: Associate Degree in Electrical Technology, Associate Degree in Automotive Mechanical Technology and Associate Degree in Tool and Die Maker Technology, making our Institution the first one to offer an Associate Degree in this field; these Associate Degrees were approved by ACCET in January 2003. On June 22, 2007, the following were approved for our Main Campus in Caguas: Associate Degree in Industrial Electromechanical Technology and Associate Degree in Biomedical Equipment Repair; these two Associate Degrees were approved by ACCET on September 2007.

In February 2004, our Institution expanded its facilities to the City of Vega Baja. This Branch began as the only one offering the Technology in Automobile Collision Repair Program. The Associate Degrees for this Branch were approved by the Higher Education Council in February 2008 and by ACCET in May 2008. These Associate Degrees are: Associate Degree in Industrial Electromechanical Technology, Associate Degree in Biomedical Equipment Repair, Associate Degree in Technology of Electricity, Associate Degree in Automotive Mechanical Technology and Associate Degree in Tool and Die Maker.

In March 2007, the Caguas Institute of Mechanical Technology (Mech Tech) underwent a change in ownership without a change in control to Mech Tech College. In 2009, the Mayagüez Branch was relocated to the Guanajibo Industrial Park in a 33,000 square feet building.

Mech-Tech College has been the main sponsor for the Drag Racing sport in Puerto Rico, becoming as well the only sponsor of the Mech-Tech College and Race Track in Ponce, Puerto Rico on 2008. In August 10, 2009 Mech-Tech College enrolled its first class in its new Branch located within the facilities of the aforementioned race track. This new location was successfully accredited by the ACCET and authorized by the Puerto Rico General Education Council.

The branch campus in Orlando, Florida offers diploma level programs of study and is licensed by the Florida Commission for Independent Education, License #4363 and was added under Mech-Tech's institutional ACCET accreditation. Additional information regarding this institution may be obtained by contacting the Commission for Independent Education, 325 West Gaines Street, Suite 1414, Tallahassee, Florida, 32399-0400, toll-free (888) 224-6684.

In the Year 2012, the following programs were added to our list of academic offerings: Technology in Technology in Alarm, Sound, and Security Systems (not currently licensed in Florida) and Associate Degree in Nursing. Also this year, a change of name was approved by the CEPR and ACCET for Associate Degree in Electrical Technology which changed to Associate Degree in Electrical Engineering and the Associate Degree in Tool and Die Maker which changed to Associate Degree in Mechanical Engineering.

## **1.1 PHILOSOPHY**

MTC/MTI is an Educational Institution, which integrates scientific and technological knowledge produced by scientific research with academic plans and curricula from various academic programs that it offers. The academic offerings are designed in response to social, economic and cultural changes in a dynamic and productive way, and seek to incorporate new concepts and technical advances in different occupations, careers and academic programs.

MTC/MTI fosters a flexible Admissions Policy based on the values of freedom, responsibility, fulfillment of one's duty, work dignity and conscience rectitude.

In its services, academic offerings, administrative work and job opportunities, MTC/MTI complies with non-discrimination policies for reasons of race, color, gender, birth, national origin, social status, political or religious ideology, age or physical disability.

Graduates of our academic programs can directly enter the job market and successfully perform in the industry, in various positions.

## **1.2. MISSION**

Mech Tech College is a higher education and technical training Institution whose mission is to train and re-train youths and adults with the necessary practical and theoretical competencies in professions that will prepare them to compete for employment opportunities that can emerge in these fields and maintain them.

Through our innovative curricula, students will be integrally formed with a capacity to critically address the technological, social, ethical, cultural, and economic challenges of a fast-growing and changing society not only in the human aspect but also intellectually.

## **1.3 PURPOSE OF THE INSTITUTION**

The core value of MTC/MTI is to achieve training of young people and adults in the areas of manufacturing and services by means of technical training courses, such as: Automotive Mechanics, Electricity, Refrigeration, Industrial Electromechanics, Electronics and Metals; and training courses aiming to an Associate Degree in Technology in Automotive Mechanics, Technology in Electrical Engineering, Technology in Mechanical Engineering. The integration of this labor force will allow them greater participation in the production of services, which are generated by the economic system and will facilitate human-condition improvement, becoming productive individuals useful to society.



### **1.3.1 Core Values**

- To train young people and adults with the technical knowledge and skills necessary to comply with the demands of qualified personnel in the public and private employment market.
- To offer academic programs formulated so that youths and adults can develop their intellectual, affective, and motor competencies to allow them to become integrated in the employment market.
- To provide young individuals with financial and social disadvantages, a study environment that stimulates their intellectual capabilities and human skills.
- To develop in students Spanish and English communication skills, and technology skills to allow them effective-global competition.
- To promote in students human and ethic values development that will allow them to successfully develop as professionals in their academic field.
- To develop in students the capability to compete and achieve their personal and professional goals.
- To create a professional who knows his/her rights and responsibilities in society and in the occupational field where he/she will develop.
- To promote and maintain bonds with the private industry so the Institution is up-to-date with the tendencies in the industrial market and with new development and technologies.

Mech-Tech College's core values are the norms for conduct and attitudes through which our institutional community behaves; these are aligned to what is considered as rightful. As an Institution in the formation of technical professionals with a Mission guided towards training and re-training technical professionals, fundamental values are needed to guide its daily operations and provide students the opportunity to develop a strong foundation aimed towards competitiveness in the labor market. The Institution has additional core values aimed towards the human aspect, as follows:

- a. Respect – Consideration and appreciation towards the Institution
- b. Tolerance – Base for life as a society, and respect for cultural, religious, and political diversity
- c. Honesty – Fundamental base for teamwork
- d. Compromise – Paves the road to face changes
- e. Responsibility – Essential to achieve institutional and educational goals and objectives
- f. Integrity – do what is right and adhere to the institutional values

## **1.4 ACCREDITATION**

MTC/MTI is an Educational Institution licensed to operate and authorized by the Puerto Rico Council of Education; accredited by the National Accreditation Agency, ACCET (Accrediting Council for Continuing Education and Training) with accreditation granted for five (5) years from August 30, 2019 until August 30, 2024; recognized by the United States Department of Education; and authorized by the State's approving agency to offer benefits to Veterans, active military personnel and their dependents only in the Caguas, Vega Baja, and Orlando Branch Campuses. The Orlando Branch Campus is licensed by the Commission for Independent Education (CIE), Florida Department of Education. Additional information regarding this institution may be obtained by contacting the Commission for Independent Education, 325 West Gaines Street, Suite 1414, Tallahassee, Florida, 32399-0400, toll-free (888) 224-6684.

Mech-Tech College is also a member of the Technical University Network (INTECO) located in Caguas, Puerto Rico and of the Puerto Rico Manufacturer's Association.

This information can be obtained in the Office of the Vicepresident for Education at the Main Campus or the Office of the Occupational Director at the branch campuses.

## **1.5 FACILITIES AND EQUIPMENT**

The Institution has the necessary equipment for students to develop their theory and practice abilities and competencies necessary for each of the programs.

The main campus facilities (Caguas) consist of: twenty three (23) administrative and student service offices, twenty two (22) classrooms, twenty (20) laboratories classrooms, one (1) tool room, a library, seven (7) bathrooms; in addition to a parking lot and 24-hour security. The facilities of the Mayagüez Campus consist of: nine (9) administrative and student service offices; a library; Server Room; one (1) vault; seven (7) laboratory classrooms; and six (6) regular classrooms. In addition, this branch campus has an additional location which offers the Collision Repair Program and has four (4) regular classrooms; one (1) reception and admissions area; the collision repair laboratory; a tool room; a storage room; and sanitary services; there is also 24-hour security. The facilities of the Bayamón Branch Campus consist of: fourteen (14) administrative and student services offices, fifteen (15) classrooms, three (3) laboratories/classrooms, ten (10) laboratories, a tool room, eight (8) restrooms, parking lot, and 24-hour security. The Vega Baja campus facilities consist of: thirteen (13) administrative and student service offices, seven (7) classrooms, twenty (20) laboratories classrooms, a tool room, two (2) computer laboratories, a library, thirteen (13) bathrooms, one (1) elevator; in addition to a parking lot and 24-hour security. The Ponce Branch has ten (10) administrative and student service offices, a vault, a tool room, bathrooms, and ten (10) classrooms/laboratories.

In addition, the Institution has access ramps and facilities for handicapped students and bathrooms with the necessary equipment for their use.

The Orlando Branch Campus has over 6 acres of land with three buildings and parking space that can accommodate over 150 vehicles. The main building consists of 15,640 square feet and has two floors. The first floor consists of service offices for Admissions, Career Services, and Finances in addition to a conference room (theater) in which group orientations are offered and which also serves as a multipurpose room for other educational activities. An access ramp is also located at the entrance of this building, as well as a large reception and waiting area, two restrooms, storage spaces, and an elevator.

The second floor has the President's office, a conference room, a reception and waiting area, various student services offices such as Registration, Financial Aid, and Accounting plus two restrooms, storage space, and an elevator.

The second building consists of 5,854 square feet and holds seven (7) regular classrooms that accommodate at least 25 students at a time. It also has an additional reception and waiting area, two restrooms, and a teacher's lounge/kitchen. It is a one story building where the Director's Office is located, a computer laboratory and the Network IT Command Center are also located. This building is the students' main entrance and reception.

The third building consists of 18,100 square feet with 11 laboratories prepared and equipped for the study programs offered at the Branch Campus in addition to 11 regular (lecture) classrooms that provide for a unique teaching methodology and learning experience allowing for theory and practice to be taught in the same building. It has a teacher's break room, a tool room, storage area, and restrooms are also located in this building. In addition, there is an additional building that will have more space for the students to practice.

## **2.0 GOVERNANCE**

Mech Tech College, LLC is a limited liability company and is organized under the laws of the Commonwealth of Puerto Rico. Mech-Tech Institute of Orlando, Florida operates under Mech-Tech U.S. Corp., organized under the Laws of the State of Florida. All companies hold the same sole proprietorship.

## **2.1 INSTITUTIONAL PROFILE**

MTC/MTI was founded with the responsibility of training technical personnel of both genders in the field of metals, electricity and mechanics, and subsequently, electronics and refrigeration, in order to meet the occupational demands of the industry. The Main Campus is located in the City of Caguas, Puerto Rico. In addition, there is a second institution located in the city of Mayagüez; a third one in Bayamón and a fourth one located in Vega Baja. In 2009, a new Branch in Ponce, Puerto Rico was established and Mech-Tech College's Health Division opened. A branch campus operating as MTI is located in Orlando, Florida.

MECH-TECH offers the following technical programs:

- Advanced Automotive Technology

- Diesel Technology and Advanced Systems
- Technology in Industrial Electricity with PLC and Renewable Energy
- Technology in Refrigeration and Air Conditioning
- Technology in Industrial Welding
- Technology in Marine Mechanics with Electronic Systems
- Technology in Collision and Auto Body Repair (only Vega Baja and Mayaguez)
- Technology in Advanced Automatic Transmissions
- Motorcycles Repair and Maintenance
- Technology in Racing Mechanics (not offered in Mayaguez)
- Tool and Die Maker Technician (not offered in Ponce)

Mech Tech offers the following Associate Degree Programs in its Caguas and Vega Baja Branch Campuses:

- Associate Degree in Technology in Electrical Engineering
- Associate Degree in Automotive Mechanics Technology
- Associate Degree in Technology in Mechanical Engineering
- Associate Degree in Biomedical Equipment Repair
- Associate Degree in Industrial Electromechanical Technology

The Orlando branch campus offers the following programs of study:

- Technology in Diesel Mechanics (48 credits)
- Technology in Industrial Welding (48 credits)
- Technology in Racing Mechanics (48 credits)
- Automotive Mechanics (48 credits)

The Institution offers the following supplementary courses in Technical Programs:

- Costs and Estimates
- Human Relations
- Technical English
- Industrial Safety
- Applied Mathematics
- Introduction to Computers
- Welding

In Associate Degree programs the supplementary and general courses are:

- Spanish
- English
- Mathematics
- Physics
- Humanities
- Human Conduct and Interpersonal Relations
- Introduction to Computers
- Business Ethics and Administration
- Industrial Safety
- Electronics Fundamentals
- Electricity Fundamentals
- Writing of Technical Reports

The supplementary courses are aimed at preparing the student with the competencies required by the Industry and the curriculums meet all the requirements established by the various accrediting organisms, as well as learning centers,

classrooms and laboratories. The teachers are highly qualified professionals who meet the necessary academic requirements.

## **2.2 GOVERNING STRUCTURE OF THE INSTITUTION**

### **2.2.1 Members**

Mech Tech College, LLC, is a limited liability company organized under the laws of the Commonwealth of Puerto Rico. Mr. Edwin Colón is the only owner of the company. In addition, he is the President, only Member and Administrator. The same ownership is maintained for Mech-Tech U.S., Corp., in order to operate as Mech-Tech Institute in Florida. Mech-Tech Institute is a fictitious name (“dba”) of Mech-Tech U.S. Corp.

### **2.2.2 President**

The President has several advisory committees for academic, legal and public relations matters and supervises all Institutional sites: Caguas, Mayagüez, Bayamón, Vega Baja, and, Ponce; as well as the branch campus as MTI of Orlando, Florida. He receives advice from an Advisory Committee composed by representatives of public interest areas related to the training programs.

The President studies and approves the Institutional Development Plan and the Annual Operations Budget. He also studies and confirms the most relevant decisions pertinent to academic and administrative aspects of the Institution; furthermore, he is the one who formulates the short and long term institutional policy and is responsible for controlling and guaranteeing the accomplishment of the educational philosophy and objectives of the Institution.

The President directs, coordinates and supervises all organizational functional areas of the Institution and is the Chief Executive Officer of the Institution. He coordinates and implements the recommendations of the Advisory Committee, as well as the institutional policy. He makes other usual, fiscal, and administrative functions pertinent to his position and is also authorized to negotiate and to contract in representation of the Institution. He manages new academic programs and represents the Institution before other educational institutions, professional organizations and any other public or private agency.

### **2.2.3 Board Members**

The Company Board of Members is comprised of:

<b>President</b>	<b>Edwin J. Colón</b> Computer Programming E.D.S. Corporation
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### **2.2.4 Administrative Personnel**

#### **Caguas Main Campus**

**President** - Edwin J. Colón Cosme  
**Chief Analytical Officer** – Francisco Colón  
**Operations Manager** – Sarah Méndez  
Operations Coordinator – Velmarie Merced  
Presidency and Operations Coordinator – Verónica Rivera  
Admissions and Projects Coordinator – Loise Ortiz  
**Controller** – José Maldonado  
**Accounting Director** – Carmen T. Vázquez  
Accounting Assistant – Luz Y. Alvira  
Accounting Assistant – Kelvin Arroyo  
General Ledger Analyst – Noé Cabrera  
Accounts Payable – Emma Luisa Cardoza

Accounting Officer – Axel Cintrón  
**Vice President for Administration / Fiscal Officer** – Agüilda Gómez  
 Finance Officer – Hildaliz Vélez  
 Finance Officer – Carmen Álamo  
 Events Coordinator – Dolores Galarza  
**Vice President of Education** – Isaías Rojas  
**Campus Director** – Javier Claudio  
**Academic Director / Title IX Coordinator** – Dr. César Toro  
**Accreditation and Curriculum Specialist** – Dra. Yolanda Huertas  
 Lead Coordinator – Carlos Cruz  
 Coordinator for Vicepresidency of Education – Tahirí Rivera  
 Tool Room – José Maldonado  
 Purchases Director – Jonathan Del Valle  
 Purchases Officer – Danielis Santos  
**Career Services Director** - María Ramón  
 Career Services Officer – Marta Verónica Medina  
**Registrar** – Mayra Marrero  
 Auxiliary Registrar – Yaritza Rivera  
 Registration Officer – Yenitza Reyes  
 Registration Officer – María del Mar Estela  
 Registration Officer – Sonia Rodríguez  
**Vice President for Student Affairs** – Lydia Rojas, Esq.  
 Director of Educational Resources – Carmen Rosado  
 Librarian – Miguel Rodríguez  
 Library Officer – Marielis Cotto  
 Auxiliary Librarian – Awilda Santana  
 Counselor – Sarah Barreto  
 Retention Officer – Bárbara Peñalvert  
 Nurse – María de los Ángeles González  
**Vice President for Admissions** – Emilio Pérez  
 Admissions Officer – Alexandra George  
 Admissions Officer – Mariechelle Méndez  
 Admissions Officer – Cruz Milagros Ramos  
 Receptionist – Agnes I. Rivera  
**Vice President for Compliance** – Belén González  
**Financial Aid Director** – Jessica Cruz  
 Financial Aid Officer – Adria Rodríguez  
 Financial Aid Officer – Sharon Pedraza  
 Financial Aid Officer – Luz González  
 Prevention Officer – Rosa Martínez  
**Vice President of Planning and Development Affairs** - José A. Algorri  
 Maintenance – Altagracia Sánchez  
 Maintenance – Edwin Berríos  
 Maintenance – Yamil Hernández  
 Maintenance – Joseph Arroyo  
 Maintenance – Joelimar Rosario  
**Director of Information Systems** – Adan Correa  
 Computer Technician – Raymond Torres  
 Computer Technician – *Vacant*

**Vega Baja Branch Campus**

**President** - Edwin J. Colón  
**Chief Analytical Officer** – Francisco Colón  
**Operations Manager** – Sarah Méndez  
 Operations Coordinator – Velmarie Merced  
 Presidency and Operations Coordinator – Verónica Rivera  
 Admissions and Projects Coordinator – Loise Ortiz  
**Controller** – José Maldonado  
**Accounting Director** – **Carmen T. Vázquez**  
 Accounting Assistant – Luz Y. Alvira  
 Accounting Assistant – Kelvin Arroyo

General Ledger Analyst – Noé Cabrera  
 Accounts Payable – Emma Luisa Cardoza  
 Accounting Officer – Axel Cintrón  
**Vice President for Administration / Fiscal Officer** – Agüilda Gómez  
 Finance Officer – Javier Torres  
**Vice President of Education** – Isaías Rojas  
**Campus Director** – Carla Fontán  
**Accreditation and Curriculum Specialist** – Yolanda Huertas  
 Lead Coordinator – Carlos Cruz  
 Coordinator for Vicepresidency of Education – Tahirí Rivera  
 Tool Room – Kevin Castillo  
 Purchases Director – Jonathan Del Valle  
 Purchases Officer – Danielis Santos  
**Career Services Director** - María Ramón  
 Career Services Officer – Aidaliz Pantoja  
**Registrar** – Mayra Marrero  
 Auxiliary Registrar – Yaritza Rivera  
 Registration Officer – Cassandra Díaz  
 Registration Officer – Alexandra Echevarría  
**Vice President for Student Affairs** – Lydia Rojas, Esq.  
 Counselor – Galimary Villanueva  
 Nurse – Greysa Bracero  
 Director of Educational Resources – Carmen Rosado  
 Librarian – Ángela C. Acevedo  
 Evening Librarian – *Vacant*  
**Vice President for Admissions** – Emilio Pérez  
 Admissions Officer – Sheyla M. Ávila  
 Admissions Officer – María Vázquez  
 Receptionist – Marilyn Marrero  
**Vice President for Compliance** – Belén González  
**Financial Aid Director** - Jessica Cruz  
 Financial Aid Officer – Emilys Reyes  
 Financial Aid Officer – Tamara Hermida  
 Prevention Officer – Rosa Martínez  
**Vice President of Planning and Development Affairs** - José A. Algorri  
 Maintenance – Suheily Bracero  
 Maintenance – Jennifer Maldonado  
**Director for Information Systems** – Adan Correa  
 Computer Technician – Raymond Torres  
 Computer Technician – *Vacant*

### **Bayamón Branch Campus**

**President** - Edwin J. Colón  
**Chief Analytical Officer** – Francisco Colón  
**Operations Manager** – Sarah Méndez  
 Operations Coordinator – Velmarie Merced  
 Presidency and Operations Coordinator – Verónica Rivera  
 Admissions and Projects Coordinator – Loise Ortiz  
**Controller** – José Maldonado  
**Accounting Director** – **Carmen T. Vázquez**  
 Accounting Assistant – Luz Y. Alvira  
 Accounting Assistant – Kelvin Arroyo  
 General Ledger Analyst – Noé Cabrera  
 Accounts Payable – Emma Luisa Cardoza  
 Accounting Officer – Axel Cintrón  
**Vice President for Administration / Fiscal Officer** – Agüilda Gómez  
 Finance Officer – *Vacant*  
**Vice President of Education** – Isaías Rojas  
**Local Education Expert** – Yolanda Huertas  
**Lead Coordinator** – Carlos Cruz  
**Campus Director** – Eric Rivera

Coordinator for Vicepresidency of Education – Tahirí Rivera  
 Tool Room – Jonathan Del Valle  
 Purchases Director – Jonathan Del Valle  
 Purchases Officer – Danielis Santos  
**Career Services Director** – María Ramón  
 Career Services Officer – Montse Vázquez  
**Registrar** – Mayra Marrero  
 Auxiliary Registrar – Yaritza Rivera  
 Registration Officer – *Vacant*  
**Vice President for Student Affairs** – Lydia Rojas, Esq.  
 Counselor – Emmanuel Pagán  
**Vice President for Admissions** – Emilio Pérez  
 Admissions Officer – Cruz Milagros Ramos  
 Admissions Officer – Jaclyn Mercado  
 Admissions Officer – Edgar Vargas  
 Receptionist – Maribel Rosado  
**Vice President for Compliance** – Belén González  
 Financial Aid Director - Jessica Cruz  
 Financial Aid Officer – Leslie M. Algea  
 Prevention Officer – Rosa Martínez  
**Vice President of Planning and Development Affairs** - José A. Algorri  
 Maintenance – Ana Luz Santos  
**Director for Information Systems** – Adan Correa  
 Computer Technician – Raymond Torres  
 Computer Technician – *Vacant*

**Ponce Branch Campus**

**President** - Edwin J. Colón  
**Chief Analytical Officer** – Francisco Colón  
**Operations Manager** – Sarah Méndez  
 Operations Coordinator – Velmarie Merced  
 Presidency and Operations Coordinator – Verónica Rivera  
 Admissions and Projects Coordinator – Loise Ortiz  
**Controller** – José Maldonado  
**Accounting Director** – **Carmen T. Vázquez**  
 Accounting Assistant – Luz Y. Alvira  
 Accounting Assistant – Kelvin Arroyo  
 General Ledger Analyst – Noé Cabrera  
 Accounts Payable – Emma Luisa Cardoza  
 Accounting Officer – Axel Cintrón  
**Vice President for Administration / Fiscal Officer** – Agüilda Gómez  
 Finance Officer – Francisco Fernández  
**Vice President of Education** – Isaías Rojas  
**Local Education Expert** – Yolanda Huertas  
**Lead Coordinator** – Carlos Cruz  
**Campus Director** – Cruz Vega  
 Coordinator for Vicepresidency of Education – Tahirí Rivera  
 Tool Room – Carlos Martínez Rivera  
 Purchases Director – Jonathan Del Valle  
 Purchases Officer – Danielis Santos  
**Career Services Director** - María Ramón  
 Career Services Officer – Héctor Ortiz  
**Registrar** – Mayra Marrero  
 Auxiliary Registrar – Yaritza Rivera  
 Registration Officer – Edna Ruiz  
**Vice President for Student Affairs** – Lydia Rojas, Esq.  
 Counselor – Jessica Acosta  
**Vice President for Admissions** – Emilio Pérez  
 Admissions Officer – Sheila Ruiz  
 Admissions Officer – Nydia E. Colón  
 Receptionist – Débora Jiménez

**Vice President for Compliance** – Belén González  
**Financial Aid Director** - Jessica Cruz  
Financial Aid Officer – Pamela Rivera  
Prevention Officer – Steven Candelaria  
**Vice President of Planning and Development Affairs** - José A. Algorri  
Maintenance – Jan Carlos Toro  
Maintenance – Raymond Rosado  
**Director for Information Systems** – Adan Correa  
Computer Technician II – Edwin Ojeda

**Mayagüez Branch Campus**

**President** - Edwin J. Colón-Cosme  
**Chief Analytical Officer** – Francisco Colón  
**Operations Manager** – Sarah Méndez  
Operations Coordinator – Velmarie Merced  
Presidency and Operations Coordinator – Verónica Rivera  
Admissions and Projects Coordinator – Loise Ortiz  
**Controller** – José Maldonado  
**Accounting Director – Carmen T. Vázquez**  
Accounting Assistant – Luz Y. Alvira  
Accounting Assistant – Kelvin Arroyo  
General Ledger Analyst – Noé Cabrera  
Accounts Payable – Emma Luisa Cardoza  
Accounting Officer – Axel Cintrón  
**Vice President for Administration / Fiscal Officer** – Agüilda Gómez  
Finance Officer – Tomás B. Molina  
**Vice President of Education** – Isaías Rojas  
**Local Education Expert** – Yolanda Huertas  
**Lead Coordinator** – Carlos Cruz  
**Campus Director** – Deisha Aponte  
Coordinator for Vicepresidency of Education – Tahirí Rivera  
Tool Room (Auto Body Repair) – Fredys Vargas  
Tool Room (Main Building) – Raúl Rossy  
Tool Room (Evenings) – *Vacant*  
Purchases Director – Jonathan Del Valle  
Purchases Officer – Danielis Santos  
**Career Services Director** - María Ramón  
Career Services Officer – Isabel del Carmen Rivera  
**Registrar** – Mayra Marrero  
Auxiliary Registrar – Yaritza Rivera  
Registration Officer - Marilyn Pacheco  
**Vice President for Student Affairs** – Lydia Rojas, Esq.  
Counselor – Jessica Acosta  
**Director of Educational Resources / Librarian** – Carmen Rosado  
**Vice President for Admissions** – Emilio Pérez  
Admissions Officer – Marisol Morales  
Admissions Officer – Mary Ann Martínez  
Receptionist – María Vega  
**Vice President for Compliance** – Belén González  
Financial Aid Director - Jessica Cruz  
Financial Aid Officer - Marangely Sánchez  
Prevention Officer – Steven Candelaria  
**Vice President of Planning and Development Affairs** - José A. Algorri  
Maintenance – Misael Rivera  
Maintenance – Luis Rodríguez  
Maintenance – Santa Padilla  
**Director for Information Systems** – Adan Correa  
Computer Technician II – Edwin Ojeda



### **Orlando, Florida Branch Campus**

**President/C.E.O.** - Edwin J. Colón-Cosme  
**Chief Analytical Officer** – Francisco Colón  
**Operations Manager** – Sarah Méndez  
Operations Coordinator – Velmarie Merced  
Presidency and Operations Coordinator – Verónica Rivera  
Admissions and Projects Coordinator – Loise Ortiz  
**Campus Director** – Mayra Sánchez  
**Controller** – José Maldonado  
**Vice President for Administration/Fiscal Officer** – Aguilida Gómez  
College Registrar and Bursar – Alexis Vargas  
**Vice President for Compliance** – Belén González  
Financial Aid Director – Jessica Cruz  
Financial Aid Officer – Jessica López  
Prevention Officer – Steven Candelaria  
**Vice President for Student Affairs** – Lydia Rojas  
**Vice President for Admission** – Emilio Pérez  
Receptionist/Office Assistant – Samantha Hernández  
Admissions Representative – Ana V. Rodríguez  
Admissions Representative – Carlos Aguilera  
Admissions Representative – Renán Villalobos  
**Vice President of Planning and Development Affairs** - José A. Algorri  
Maintenance – Margarita Batista  
**Vice President of Education** – Isaías Rojas  
Tool Room – Megan Hernández  
**Career Services Director** – María Ramón  
Career Services & Student Life Officer – Tiarah González  
**Registrar** – Mayra Marrero  
Auxiliary Registrar – Yaritza Rivera  
College Registrar and Bursar – Alexis Vargas  
**Vice President for Information Technology** – *Vacant*  
**Director for Information Systems** – Adan Correa

#### **2.2.5 Advisory and Interaction Committees**

The Advisory Committees of Mech Tech College are support teams composed of people who have the knowledge, competencies and experience, which allow them to serve as liaisons between the school, Industry and the community in general.

The Advisory Committees' participation is of great importance in strengthening and enhancing technical education. These committees advise the school regarding planning, development and review of the training courses offered to the staff, curricular review and other educational programs, which can be implemented.

The Advisory Committees of our Institution represent different community sectors, such as: the industry, leading businesses, and the banking sector.

The committees should identify job market trends and demands for human resources in the area of technical and industrial education. In addition, they should provide the Institution with information regarding the standards established in the technical curriculum, as well as technological changes and needs existing in the labor field. They also advise the Institution regarding its curricula, teaching materials, tools, equipment, and establishment of skill-performance levels, competencies, goals and objectives in the development of the short-term action plan. In addition, they participate in job opportunity searches for students who have graduated from the Institution; provide orientation to business owners regarding the technical courses offered and stimulate the teachers and students in developing occupational competencies, open houses and others.

For Mech-Tech Institute, the advisory committee meets at least once a year, and its company representatives are: Berman, Driveway Dodge/Jeep, CAP World, Titak American, Bankers Steel, REV Ambulance, and Beyel Brothers.

### **3.0 POLICIES**

#### **3.1 NON-DISCRIMINATION POLICY**

MTC/MTI does not discriminate for reasons of race, color, age, gender, religion, nationality, marital status, political affiliation, ethnic origin or physical disability which does not interfere in the accomplishment of the study program and/or job performance.

#### **3.2 POLICY OF PROVIDING INFORMATION TO STUDENTS**

The Institution will not provide information about a student to third parties. To release information, students must authorize it in writing by filling out a form for those purposes in the Registrar's Office, indicating the person(s) name and the type of information to be furnished; Federal Law approves this policy.

#### **3.3 DRESS CODE**

Students who enroll starting February 2013, are required to wear a uniform. The uniform was designed to comply with the safety standards required in the occupational fields offered by the Institution and complies with the purpose of students to develop a higher level of professionalism.

Since February 2013, students are required to use the institutional uniform which was designed to comply with the safety standards required in the occupational fields offered by the Institution and that contributes to the development of a high level of professionalism in students.

#### **3.4 PROCEDURES FOR REPORTING EMERGENCIES AND CRIMES OCCURRING WITHIN INSTITUTIONAL FACILITIES**

All emergencies or crimes occurring on campus will be processed as follows:

- ✓ The employee or affected person will inform the incident to the Vice-President for Academic Affairs and/or the Vice-President for Administration or an authorized office of the Institution. If the incident involves a student, it will be notified to the Vice-President and/or the Dean for Student Affairs. These authorized officers will be responsible of notifying the concerning agencies which may include the Police Department and/or Medical Emergencies. The Vice-President for Academic Affairs and Student Affairs will maintain a registry of each incident informed.
- ✓ The following incidents should be reported to the Institution's authorized representatives: theft or damage to vehicles, muggings, assaults, peace disturbance, sexual offenses, unlawful entry into school premises, vandalism, domestic violence, sexual harassment, or any other incident that affects the normal school's operations. Any incidents related to discrimination based on religion, race, political affiliation, sex, age, disability or any reason contrary to law, should also be reported.
- ✓ We will log all incidents reported and will publish those incidents to the student community each September.
- ✓ All students and employees must follow the security personnel instructions for their protection. The security or administrative personnel shall deny access to the Institution to persons possessing alcoholic beverages, drugs, firearms or any other items, which violates Student Regulations. A student, who commits violations, will be referred to the school's Vicepresident for Student Affairs and to the Counselor for the corresponding action as established in the Student Handbook.
- ✓ The Counseling Office (where available) will offer lectures during the year to students and employees regarding prevention of crime, sexual offenses and personal safety. Those who are interested may request guidance and information on those subjects.
- ✓ Unauthorized persons may not enter the Institution; the administrative staff should work in coordination with the closest headquarters of the local Police.
- ✓ All students and employees will keep the Institution's Anti-Drugs and Alcohol Policy in an accessible location.

### **3.5 POLICY PROHIBITING SEXUAL HARASSMENT**

MTC/MTI's policy and practice is to ensure equal employment opportunity to all, regardless of race, color, age, religion, sex, national origin or social condition, disability, Vietnam or any other veteran status, marital status, to allow and/or accept any direct or indirect conduct that constitutes sexual harassment or any other legally protected condition. The Bill of Rights of our Constitution establishes that the dignity of human beings is not to be violated, and that we are all equal before the law, while clearly stating that no discrimination may take effect for the aforementioned reasons. This policy applies to all personnel of the Institution and employment practices such as recruitment, promotion, evaluation and training; among others.

The practice of sexual harassment in the workplace and academic environment, in any of its forms, infringes on the inviolability of human beings and constitutes clear discrimination against men or women in the work environment. It interferes with people's ability to work and deprives them of the enjoyment of a full life to which all human beings have a right in equal circumstances under the law, as expressed in the constitutional mandate and it is one of the manifestations of discriminations on the basis of sex; this includes men and women. The magnitude of this problem is of concern and interest to all since sexual harassment in the workplace and/or classroom constitutes an unacceptable offense against the dignity of all human beings.

The purpose of this policy is to provide a working environment that is free of harassment and intimidation, which will allow all employees to carry out their administrative and academic work. The presence of harassment or intimidation in the workplace is a violation of this policy and will be addressed according to the corrective measures determined by the Institution; therefore, any behavior or verbal expression, whether written or physical, of a sexual nature that could create an offensive or intimidating work environment for an employee or that interferes or could interfere with the work of an employee, is prohibited. Likewise, the solicitation of sexual favors and/or sexual advances towards our employees and/or students is strictly prohibited.

Law No. 17 of April 22, 1988 (applies only to Puerto Rico) and the regulations of our Institution provide that workplace sexual harassment is constituted by solicitation of sexual favors, unwanted sexual advances or other physical or verbal conduct of a sexual content:

1. When submitting to such conduct implicitly or explicitly constitutes a condition or term for obtaining or maintaining employment or continuity as a student.
2. When submission to or rejection of such conduct is used as the basis for making employment decisions or in the student's academic evaluation.
3. When this conduct has the effect of interfering unreasonably with the performance of work (whether administrative or teaching) of the employee or creates an intimidating, hostile or offensive environment for the employee.

Sexual harassment can be expressed through sexual insinuation or indirect comments, physical contact and even sexual aggression.

Disciplinary sanctions are applicable to employees and/or students who engage in sexual harassment, as provided in the Institutional policy on harassment at the workplace.

#### **3.5.1 IN THE EVENT OF SEXUAL ASSAULT**

If the event involves an employee, it must be notified to the Vice-President for Administration and/or the Branch Campus Coordinator. If it involves a student, the incident must be notified to the Vice-President and/or Dean for Student Affairs and to the Counselor.

The Institution is committed to arrange medical assistance to the student and offer first aid. In addition, it will coordinate any assistance with the local Rape Victims Help Center.

### **3.6 STUDENT RIGHT TO KNOW POLICY**

All Institutions receiving Title IV Program funds have the obligation to provide information to any student or prospect regarding their retention and graduation rates. Mech Tech, pursuant to Public Law 101-542, known as the “STUDENT RIGHT TO KNOW”, will report its retention and graduation rates on July 1 of each year.

In addition, MTC/MTI will inform students of any changes made in the Institution.

### **3.7 CAMPUS SECURITY ACT POLICY**

The Institution recognizes, as an institutional interest, the protection of life and safety of all its members, and has developed the On-Campus Safety Policy in compliance with Federal Regulations and provisions of the “Crime Awareness and Campus Security Act”. This act requires the establishment of a policy, which allows a safe working and study environment, free of risks, acts of rape and danger. The law recognizes the right of students, potential students, and the community in general to be informed about criminal acts occurred in the Institution.

This document will be given to each candidate, student and staff member of the Institution and provides for the procedure to follow in the event of emergencies within institutional premises. It applies to students as well as to faculty, visitors and the administrative staff.

The objective of this policy is to establish a basic emergency procedure to guarantee the protection of life and property on institutional premises.

The policy covers emergencies such as:

- Murder / Negligent involuntary homicide
- Forced sexual offense (including rapes)
- Unforced sexual offense
- Robbery or theft
- Aggravated assault
- Motor vehicle theft
- Theft of vehicle accessories
- Arson
- Simple assault
- Violations of alcohol abuse laws
- Violations of controlled substance laws
- Illegal weapons possession
- Threats
- Discrimination/Crimes due to causes of discrimination based on race, religion, sexual orientation, and country of origin or others.

### **3.8 NON-SMOKING POLICY**

The Institution prohibits the student community from smoking in the Institution and in any closed spaces, such as: classrooms, laboratories, hallways, offices, the library and restrooms; among others.

### **3.9 RECIPROCAL RIGHTS AND DUTIES OF THE INSTITUTION AND THE STUDENTS**

MTC/MTI is committed to maintaining an educational environment based on the promotion of healthy lifestyles and respect for the teaching-learning process. It has also established a policy regarding Drugs and Alcohol based on the Drug Free Schools and Communities Act of 1989 (Public Law 101-226 and the Internal Regulations of the United States Department of Defense).

The use, handling and distribution of controlled substances as well as the consumption of alcohol within institutional premises will entail the sanctions stipulated in the **Regulations on the Illegal Use of Drugs and Alcohol Abuse, Faculty and Administrative Handbooks**.

The Institution prohibits any form of on-the-job harassment and in the academic environment, since it considers it, besides being illegal, to be against the Institution's best interests. Under no circumstances, will it allow academic or administrative staff or members of the student body to engage in behavior which can directly or indirectly create a working and/or student environment in which aspects of sexual harassment or harassment of any other kind are present.

The institutional policy promulgated to that effect sets forth the sanctions applicable to students or academic and administrative staff or personnel who engage in violations of the statute.

The Student Handbook contains the regulatory provisions, which protect students and establishes the rules and responsibilities of Mech Tech students as well as the rights and privileges, which they enjoy.

The Institution has established procedures for filing and hearing complaints made by students regarding situations, which are affecting them. It also has systems for appealing decisions related to their academic progress. The Vicepresident of Student Affairs is the officer in charge of channeling and dealing with situations related to student rights and responsibilities.

### **3.10 POLICY IN COMPLIANCE WITH LAW 186**

Mech-Tech College has developed a policy in order to comply with Puerto Rico Law 186 of September 1, 2006. This policy has the fundamental intention of maintaining in strict confidentiality the social security number of the students and prospects; the number will only appear in official documents of the Institution. For more information, please refer to the Registrar's Office in any of our sites. This policy is not applicable to MTI of Orlando, Florida.

### **3.11 BULLYING PREVENTION POLICY**

All students have the right to feel safe in their personal and social lives. The Institution prohibits harassment, threats, and bullying among students. This behavior is classified as actions of systematic violence, psychological, physical, or sexual from the student or group of students towards their class peers who are not in position of defending themselves (Lex Juris, Law 37 from April 10, 2008).

MTC/MTI promotes a policy free of threats and intimidation so that students can develop in a safe study environment. The Institution will work with the prevention of bullying by offering workshops through its Counseling personnel and if a complaint is filed, the Vice-Presidency for Student Affairs will intervene and apply the procedure established in the Student's Handbook. The Institution will also protect the documents of the students' records and academic history. The students will have a healthy student life where their rights are protected to help them achieve their academic goals; they will also have the opportunity of selecting their field of studies freely.

### **3.12 POLICY FOR TREATMENT OF STUDENTS WHO SUFFER FROM ASTHMA, DIABETES, OR OTHER ILLNESS**

In compliance with Public Law 56 of February 1, 2006, as amended, known as "*Ley de Tratamiento de Estudiantes que Padece Alergia, Diabetes u otra enfermedad*", Mech-Tech College recognizes every student's right to self-administer medication for asthma, diabetes, or any other medical condition within our facilities or institution-sponsored activities, given the father, mother, or tutor's consent if the student is a minor.

For a minor student to self-administer medication for asthma, diabetes, or any other illness, it is required to bring a health care practitioner's certification stating the medical condition, medication used for treating it, and that he/she has been instructed by a qualified healthcare professional of the correct use for self-administration of the medication, that includes: type of medication, administration route, steps to follow for self-administration, dosage, when and frequency, instructions for safe-management and storage of the medication. In addition, it will be the father, mother, or tutor's responsibility to bring up-to-date documents so that the student can make use of this right.

It will be required that any student diagnosed with asthma, diabetes, or any other illness, to have a written Action Plan for managing the condition, prepared by his/her primary care physician and the need to use the medication during school hours.

No institution or person can interfere with students' right to use the necessary medications for the treatment of asthma, diabetes, or any other illness. If this happens, he/she may incur in an administrative fault and/or fine. Any person acting in accordance with what the aforementioned Law states, shall not incur in civil liability in case of any complication due to the self-administration of medication by a student.

### **3.13 VACCINATION POLICY**

This policy applies to all students under 21 years of age who request admission to Mech-Tech College for all its Puerto Rico Branch Campuses.

According to the Procedures and Regulations of the Health Department concerning the Tests for Transmitted Diseases and Students' Vaccination, it is required that all students who are admitted in Mech-Tech College until the age of 21 years, comply with the following vaccination requirements:

1. A reinforcement dose of the following vaccines: Tetanus, Diphtheria, and Acellular Pertussis (Tdap) and/or a reinforcement of Tetanus and Diphtheria (Td) within the last 10 years or according to the case.
2. Two doses of the following vaccines: Common Measles, German Measles, and Mumps (MMR).
3. Three doses of the Hepatitis B vaccine.
4. Three doses of the Polio (OPV/TPV) vaccine if the last one was administered on or after the fourth year of age.
5. Vaccine against Chicken Pox (VAR); one dose is recommended for adolescents between the ages of 11 to 18 years and complete a second dose according to the existing regulations or a signed declaration by the doctor specifying that history of having contracted the disease exists.

These vaccines must be registered in the PVAC-3 form (green paper).

Students, who for religious beliefs are not vaccinated, must present a sworn statement or a certification from the physician; nonetheless, the exemptions for religious beliefs will be null in case that an epidemic is declared by the Secretary of Health.

## **4.0 OFFICE SERVICES**

### **4.1 ADMISSIONS OFFICE**

This office evaluates applications of all prospects or candidates. In this office, the documents required for student admission are received, the administration of the admission exam for students in the Ability to Benefit Program are coordinated, (not presently offered) prospective students are interviewed and their eligibility for admission is determined.

### **4.2 REGISTRAR'S OFFICE**

This office keeps custody of all student files and transcripts regarding their academic progress. It processes registrations and withdrawals, grades, academic progress and student evaluations and produces official lists, course certifications, graduation certifications, transcripts, and diplomas.

### **4.3 COLLECTIONS OFFICE**

This office maintains a subsidiary in which the student's financial record is reflected, including payments and refunds. It collects fees pertaining to the study contract, including other related charges, I.D. Card and credit transcripts.

#### **4.4 FINANCIAL ASSISTANCE OFFICE**

This office offers guidance regarding Federal Aid packages and all the processes related to the Pell Grant and other aid packages. This office also evaluates students' eligibility for the granting of federal and state aids and processes all scholarship applications from eligible students. The office is governed by the Rules and Regulations of the U.S. Department of Education's Title IV Funds and the policies of the Council of Education of Puerto Rico (CEPR) in its local (State) programs.

#### **4.5 CAREER SERVICES OFFICE (PLACEMENT)**

This office assists students in job searches and gives them guidance in finding jobs upon graduation in the public or private sector. It assists in follow-up of graduation candidates and filling out the Board Exam applications (in Puerto Rico) in order to increase their employment prospects. The Institution does not guarantee employment to students, prospective students or graduates, but it has always maintained a job placement average rate of 70% or more.

#### **4.6 OFFICE OF COUNSELING AND ORIENTATION**

The Counseling and Orientation Office, available only in Puerto Rico, offers professional services which complement the professional and academic development of the student; it deals with academic and discipline problems, absenteeism, and personal problems of students. It also offers individual and group counseling and orientation, workshops and referrals to government and private agencies according to the student's need.

The office coordinates extracurricular activities to encourage their integral development; it also offers the opportunity of reasonable accommodation for students with special needs. The Counseling and Orientation Office also handles students' referrals and students who are simply seeking the office's services. In addition, the office provides counseling and support to students who want to obtain their high school diploma.

In Mech-Tech Institute of Orlando, Florida, academic advising and personal advising are provided by the Campus Director. In addition, the Career Services and Student Life Officer provides constant monitoring and additional support.

#### **4.7 ACADEMIC COMMITTEES**

The Institution has the following Committees for the academic area:

- **ACADEMIC PROGRESS COMMITTEE** - Responsible for reviewing the case of any student who fails to comply with the Satisfactory Academic Progress Policy.
- **RE-ENTRIES COMMITTEE** - Responsible for making the necessary recommendations as to a student's re-entry application.
- **DISCIPLINE COMMITTEE** - Responsible for attending all complaints filed against a student for alleged violations to the Student Handbook.
- **INSTITUTIONAL DISCIPLINE COMMITTEE** – Responsible for attending all complaints from students against institutional employees. This committee will be presided by the Vice President for Administration. In case a complaint is presented against an instructor, the Lead Coordinator, the Occupational Comptroller, and/or Branch Campus Coordinator will attend the complaint.
- **APPEALS COMMITTEE** - Responsible for handling the revision and appeals requests of students regarding grades and documents issued by the Registrar's Office.

#### **4.8 STUDENT ACTIVITIES**

The Institution fosters activities that contribute to enhancing the students' quality of life. The Institution plans extracurricular activities during the academic year, such as: lectures, workshops, social, and cultural, sporting, and

recreational activities aimed at the student's well-rounded development. The Institution also promotes the development of student groups and associations designed to contribute to the students' formation.

#### **4.9 LIBRARY**

Mech-Tech College has three (3) Educational Resources Centers (CREs) in its Main Campus in Caguas, and the branch campuses in Bayamón, Vega Baja, and Mayaguez. It offers students, instructors, administrative personnel, and the community in general, informational resources and services that are relevant to the Institution's curricula as well as its professional and particular needs. The CRE's personnel works during class hours in a flexible schedule fit for the particular needs of our student community.

The printed and audiovisual connections, respond directly to different technical and academic areas which comprise our curricula. These resources are accessible to the academic community through the library network and library loans.

The CRE collections are in continuous growth which results in updated information services responding directly to the curricula and technology changes. The libraries have an on-line catalog in all its computers which provide direct and fast access to the information sources. The Web Catalog can also be accessed 24/7 through the Internet from any part of the World; from Mech-Tech's main page: <http://www.mechtech.edu>, the library log can also be accessed through: <http://www.bibliotecacre.tk/>

The Institution's library system has an annual budget which guarantees and maintains an updated collection responding to constant technology changes. All CRE personnel are highly qualified and possess the academic preparation in the library sciences field and vast experience in this profession. Mech-Tech Institute of Orlando, Florida has an educational resources area in which textbooks and references are available for students to use on campus.

The Library safeguards the use of its collection by protecting it from a copyright violation (Law of Author's Right, Title 17, United States Code). Students who make unauthorized use or distribution of copyrighted materials can face civil or criminal liabilities for violating this code.

#### **4.10 INFIRMARY**

Mech-Tech College presently has an Infirmary in Puerto Rico in its Main Campus of Caguas and Branch Campus of Vega Baja. The Infirmary is responsible for ensuring that the alumni receive quality preventive health care. The main purpose of the Infirmary is to promote the good physical, mental, and social health of the student community as well as achieving the best life styles. To achieve this purpose, the Infirmary works with the prevention and treatment of physical and emotional conditions. The infirmary provides services to the alumni, employees, and visitors. All services are provided at no additional cost. Some employees at the branch campuses are trained in first aid techniques.

The services we provide include educational talks, prevention clinics (HIV, Control of Sexually Transmitted Diseases, Alcohol and Drugs, Highway Accidents, Diabetes and Nutrition); among others.

#### **4.11 REQUEST FOR SERVICES**

Students, who need services from the administrative offices, may request it through the use of a form prepared for this purpose. The form is available in the Reception area.

### **5.0 RULES AND PROCEDURES**

#### **5.1 ADMISSIONS**

##### **5.1.1 Admissions Policy**

MTC/MTI, in its Admissions Policy, requires all students to have the required level of education. For students who have a High School Diploma or are from "Homeschooling", the minimum age requirement is 16. For students admitted through GED, the minimum age requirement is 18 years (CFR Part 668, Subpart J).



MTC/MTI serves all of those who decide to attain their academic goals through careers which allow them to develop personally and professionally. The Institution establishes a flexible Admissions Policy which allows access to anyone who shows genuine interest in pursuing higher education courses and meets the Institution's admission requirements.

The admissions staff at MTI of Orlando, Florida, who recruit prospective students or who participate in the admission of prospective students have completed an approved Admissions Training Program in compliance with the rules and regulations of the Commission for Independent Education (CIE) of Tallahassee, Florida.

The Institution is authorized to enroll Veterans and its beneficiaries who are referred by Federal and local agencies. These beneficiaries must comply with all the admission requirements in addition to those related with their condition of beneficiary by the corresponding agency in the Federal and local program. The Office for Veterans Affairs establishes that the beneficiaries must complete their program of study in the regular time of the program (100%) to receive their benefits. Just like regular students, both Veteran students, and recipients of Veterans' benefits, shall comply with all applicable Institutional Policies, and may not waive the credit validation process. Veterans Affairs will not pay for repeated courses if these were successfully passed by the student.

The Institution is approved by the Puerto Rico State Approving Agency to provide academic training to the students under the various GI Bill® programs (GI Bill® is a registered trademark of the United States Department of Veterans Affairs (VA)).

### 5.1.2 Admission Requirements for Technical Programs

The following are the admission requirements for Puerto Rico campuses:

- ✓ Admission Application (completed and signed)
- ✓ Original and sealed High School credit transcript or its equivalent (Law 188); evidence of high school completion of GED must be provided
- ✓ If requesting transfer of credits, official transcript from college or university must be provided
- ✓ Vaccination Certificate (green paper and for candidates who are under 21 years old)
- ✓ \$40.00 non-refundable admission fee (valid for one year)
- ✓ Read and sign an Enrollment Agreement with the Institution.

For the Associate Degrees, provide all the requirements described above plus the candidate must have 2.00 or more grade point average in High School.

During the Admission process, the Institution notifies the prospective student of conditions that may adversely impact his/her ability to benefit from training, sit for certification/licensure examinations, and/or work in the field. These conditions may include: drug-related situations, negative background check, conduct problems, possession of a driver's license, debt with the *Administration for Child Support (ASUME)* (in Puerto Rico), negative results during the verification of references for employment. The student acknowledges that he/she received the information in the *Certification of Orientation Received* form.

The Orlando (Mech-Tech Institute) branch campus offers its programs of study in English or Bilingual (Spanish/English).

For the Orlando Branch Campus, the requirements are:

1. Admission Application – to be completed and signed; identifying language and session
2. Photo IDs (Driver's License/State issued ID/Military ID/Passport)
3. Standard High School Diploma or State Issued GED Diploma (GED accrediting body must be recognized by the United States Department of Education, USDOE, for Title IV funding purposes – [www.ed.gov](http://www.ed.gov)) and/or High School/GED transcripts (must be official, sealed, and stamped). The Institution may request additional information to

validate high school.

4. Higher Education Transcripts (if requesting transferability of credits) – official copy and sent directly to: Admissions Department, 8620 S Orange Blossom Trail, Orlando, Florida 32809)
5. \$40.00 non-refundable admission fee
  - \*The diploma must read Diploma (Certificate of Completion is not allowed)
  - \*High school transcripts must read: Standard High School Diploma (Certificate of Completion is not allowed)
  - \*High school students must pass the FCAT to receive an official Diploma
6. Read and sign an Enrollment Agreement

During the Admission process, the Institution notifies the prospective student of conditions that may adversely impact his/her ability to benefit from training, sit for certification/licensure examinations, and/or work in the field. These conditions may include: drug-related situations, negative background check, conduct problems, possession of a driver's license, or negative results during the verification of references for employment. The student acknowledges that he/she received the information in the *Certification of Orientation Received* form. Students in the Bilingual (Spanish/English) program receive an additional information/orientation sheet.

All veteran students or their beneficiaries who request admission to our Institution must provide all required documentation before the first day of class (only offered in Caguas, Vega Baja, and Mech-Tech Institute of Orlando, Florida).

In accordance with Title 38 US Code 3679 subsection (e), this school adopts the following additional provisions for any students using U.S. Department of Veterans Affairs (VA) Post 9/11 G.I. Bill® or Vocational Rehabilitation & Employment benefits, while payment to the institution is pending from the VA. This school will not:

- Prevent the student's enrollment;
- Assess a late penalty fee to the student;
- Require the student to secure alternative or additional funding;
- Deny the student access to any resources (access to classes, libraries, or other institutional facilities) available to other students who have satisfied their tuition and fee bills to the institution.

However, to qualify for this provision, such students may be required to:

- Produce the VA Certificate of Eligibility by the first day of class;
- Sign a written request to be certified;
- Provide additional information that may be requested

*(GI Bill® is a registered mark of the United States Department of Veterans Affairs (VA))*

#### **5.1.2.1 Homeschooling Policy**

Mech-Tech College provide education and training to students who meet our admission requirements including those under the Homeschooling Policy.

A homeschooled student is that who has received at-home education under his/her parents supervision.

A "Homeschooling" candidate in our Institution must comply with the following admission requirements:

1. Equivalence Certification from the Department of Education or Notarized Oath from the parents or tutor (Notarize the document "Certification of Homeschooled Students" provided by the Institution).

2. If the student's education is linked to a university in the United States, provide the certification issued by the university.

In addition, the student must comply with all the Admissions Requirements established by the Institution.

#### **Home Education Policy for Mech-Tech Institute of Orlando, Florida**

The home education documentation requirements of Mech-Tech Institute varies based on state requirements, as follows:

1. If the home education was completed in a state that issues a school completion credential, the Institution will require copy of such credential and/or a transcript of academic work that is approved by the state Department of Education from the state where the applicant resides.
2. If the state has no requirements, the Institution will request additional documentation for review that may include, but is not necessarily limited to:
  - a. A transcript showing all courses, grades, and graduation date
  - b. A signed statement (will be reviewed)
3. Home schooled applicants who present a GED, must also present secondary school records.

The Registrar or Assistant Registrar will review the home education documentation and will notify the applicant if further documentation is required.

#### **5.1.3 Admission Requirements for Associate Degree Programs**

Associate Degree programs are not offered in Mech-Tech Institute of Orlando, Florida. First-time admission applicants to Mech-Tech must comply with the following requirements:

1. Be a high school graduate or equivalent with a GPA of 2.00 or higher.
  - a. Students from recognized and accredited colleges, who at the time of graduating from high school or the equivalent had a GPA of less than 2.00 and who have been college students for the equivalent of one (1) year with a GPA of a minimum of 2.00 may apply for admission and transfer credits to Mech Tech College.
  - b. Students from recognized and accredited colleges, who at the time of graduating from high school or its equivalent had a GPA of less than 2.00 and has graduated from a technical program with an average of 2.00, can solicit admission and credits transfer in our Institution.
2. Duly filled out Admission Application and \$40.00 admission fee, which expires after one year.
3. Original official High School Transcript.
4. Original PVA-3 Vaccination certificate (applicants under 21 years of age).

To be admitted, a candidate must have a high school diploma. If the candidate graduated from an accelerated high school equivalency program, the minimum age for admissions is 16.

#### **Output Assessment:**

The Output Assessment is a valuation exam that will be taken by the students before entering their practice phase. This exam serves as a measuring tool for placing students in their practice phase and also as a guide for the institution to further evaluate the program of study.

The student must pass the test with a grade of 70% or higher. If the student fails the exam, he/she will have as many opportunities as he/she requires of repeating it. The student will be provided additional training in the areas of deficiency presented in the exam.

In the Associate Degree for Biomedical Equipment Repair Program, the Clinical Phase (Practice) is currently available during the daytime only. There are no evening practice centers available in Puerto Rico for this profession. The student must make proper arrangements to complete their practice during the day in the last term of studies.

#### 5.1.4 Admission Requirements for Foreign Students

1. Foreign prospects must complete the admission requirements of the Institution as applicable for Technical Programs and Associate Degrees. (Not presently available in Mech-Tech Institute of Orlando, Florida).
2. Provide high school diploma and/or its equivalent. The copy must be validated by the Education Ministry of the country and/or by the American Embassy.
3. For Associate Degrees, provide copy of the official secondary education Credits Transcript validated by the Education Ministry of the country and/or by the American Embassy which shows a general grade point average of 2.00 and/or more in a scale of 4.00.

#### Equivalence chart:

The following chart will be used in the conversion of the general grade point average equivalent to our educational system based on a scale of 0 to 4 points. The conversion for countries where the value of academic progress is *Excellent, Outstanding, Acceptable, Insufficient, and Deficient*, the conversion will be as follows:

EQUIVALENCE CHART IN GRADE POINT AVERAGE	
Foreign countries (where this scale is applicable)	Conversion for Mech Tech College
Excellent	4.00 – 3.50
Outstanding	3.49 – 2.50
Acceptable	2.49 – 1.60
Insufficient	1.50 – 0.8
Deficient	.79 – less

Cases that have a different value than what is shown above will be evaluated individually and will receive the necessary orientation for referral to the corresponding education agencies where they can obtain the conversion or equivalence according to our educational system.

1. Foreign students under 21 years of age must present evidence of their vaccination records which will be validated in Puerto Rico according to Law 25 of the Health Department of Puerto Rico.
2. In those cases where the language of the academic records is not English and/or Spanish, the candidate must submit a translation certified by the school of origin.
3. The academic record must be validated by the Education Ministry of the country and/or by the American Embassy. Official information must also be sent regarding the grades system used for academic achievement and evidence of titles and diplomas received.
4. Foreign students must request a Visa for entry in the United States. If the student will be enrolled in vocational and/or technical programs, he/she must request an M-1 visa. It is required that all foreign students are enrolled full-time during their period of studies.
5. The prospect must show that he/she has the financial capacity of paying for their studies and lodging during the length of their studies.
6. Once the student is admitted, he/she will have a sponsor who will be responsible for financing their tuition.
7. Due to the fact that international students cannot work to earn money and pay for their education and personal expenses, they must make arrangements to have a sponsor who has the money available to pay for their expenses.
8. The sponsor has the obligation providing financial support to the student while being in American territory for which a document will be signed stating the sponsor's compromise to finance the student's studies.

9. The sponsor must provide income evidence by submitting the following documents:
  - a. Fill out a Financial Certification and Declaration together with the following documents:
    - i. Letter from the company and/or institution where he/she works which indicates the monthly income
    - ii. Copy of the Income Tax Return
    - iii. Pay stub; report from the bank with official letterhead indicating the amount available in the account. The minimum amount in the bank of a sponsor must be \$18,215.00.
    - iv. If the student is going to pay for his/her expenses, he/she must send a bank statement indicating that he/she has enough money in the account to pay for the tuition until completing a degree.
    - v. If the international student has a promise that an institution from his/her country of origin will pay for tuition, the student must provide a letter from the organization which states its compromise of paying for the tuition.
    - vi. Foreign students must request a Visa for entry in the United States. For this, they must wait for the Acceptance Letter from the Institution.
    - vii. These documents must be sent to the Admissions Office. If the certification and documents comply with the sponsorship requirements, Immigration Form I-20 will be issued and sent to the prospect.
10. The prospect will continue with the steps and payments required for his/her transfer and enrollment in the Institution. The PSDO of the Institution will maintain a record of each of the students enrolled in our Institution. These records must be updated with the student's information. The DSO from the branch campuses will maintain this information updated and will send it to the PSDO who will maintain SEVIS updated.

Foreign students must comply with the current Attendance Policy and with all other institutional requirements. At all times, they must maintain their status as active students under the corresponding classification. The Department of States of the United States issues a Student Visa for the purpose of **studying**, which is why actions that go against this purpose are not allowed. The foreign student must, without understanding it as a limitation: maintain his/her legal status at all times, maintain a full-time academic load, attend classes on a daily basis, and approve them. If the foreign student understands that he/she will not complete the program of study within the stipulated time, an extension must be requested at the appropriate time. The foreign student must comply with all regulations associated to his/her Student Visa including that once the program of study is completed, he/she must return to his/her country of origin within the time established in the regulation. It is required that the student maintains communication with the DSO while studying at our Institution.

### 5.1.5 Admissions Procedure

- All applicants must undergo an interview with the Admissions Representative who will offer the candidate a general orientation regarding the Institution's admission requirements, programs offered, duration, costs, payment options, starting and ending dates, and employment possibilities in the occupational field of their choosing. If there are any known barriers for employment or that may impact the applicant's ability to benefit from the program of study, it will be discussed during the admissions process. In addition, the applicant will receive additional information, according to his/her interest. The candidate is then offered a tour of the Institution's facilities.
- Once the candidate has decided to study one program in particular, he/she fills out the Admission Application and is given orientation regarding the documents, which must accompany the application.
- Once the admission applications are received, they are evaluated and it is determined whether the candidate is accepted or not. If the applicant does not meet admission requirements, s/he will be notified in writing.
- At any given point during this process, the prospective student or applicant receive Financial Aid orientation.
- An orientation from the Finances (Collections) Office is also provided.
- Once the student is accepted, the enrollment agreement is filled out, the Registrar's Office prepares the student's file, his/her enrollment, and provides him/her with guidance regarding the class schedule.

- For MTI, Orlando branch campus, applicants will identify in the admissions application the language session of the program.

#### **5.1.5.1 Admission Procedure for People with Disabilities**

The admission procedure for an individual with physical impairment or any other disability is the same as that of any other student. These candidates are oriented of the programs and courses requirements, the facilities available for them, classrooms, and sanitary services; in addition to the counseling services offered by the specific branch campus they enroll in.

#### **5.1.5.2 Admission Procedure for People with Criminal Background**

The Institution will evaluate all applications in which the prospective student discloses prior criminal conduct, criminal background, or inappropriate behavior in educational institutions to determine if the admission can proceed in the best interest of the institutional environment. Applicants who do not disclose criminal background or in-process criminal charges or pending adjudication during their Admission Application process as well as prior inappropriate behaviors in educational institutions, it will be understood that they incurred in a violation of the disclosure requirement as per our institutional Admissions Policy, and will be subject to the corresponding action by the Institution, included, but not limited to:

1. not being admitted or re-admitted,
2. the revoking of admission to the Institution,
3. any other disciplinary or academic action, including expulsion

There will not be an appeals process for the applicant under this policy. Applicants that are registered as sexual offenders or predators, as defined by State Law, will not be admitted given the case that the Institution can have minor students among the institutional community. Some conditions related to criminal history can limit employment opportunities in the occupational fields of the programs of study offered by the Institution.

#### **5.1.5.3 Validation of High School Diploma and/or Credit Transfers**

The objective of this procedure is to validate that the grade obtained by the student has been through an institution that operates under the approval of the corresponding agencies in Puerto Rico as in the United States and that such institution complies with the standards of law required to offer its educational services. This is done so that the student can benefit from Title IV funds, if eligible. This procedure applies to all prospective enrollees who request admission to MTC/MTI.

#### **5.1.6 Credits Transfer**

A student may request an official credit transcript from MTC/MTI to go to another institution. The transcript is sent by regular mail within five (5) work days. If the other institution requires it, MTC/MTI will provide its Institutional Catalog which includes the description and objectives of the courses for all its programs of study.

Our Institution holds collaboration agreements with the following institutions in Puerto Rico: Central University of Bayamón (UCB), Polytechnic University of Puerto Rico, School of Plastic Arts of Puerto Rico (EAP), and the Interamerican University of Puerto Rico. These agreements allow our students the transfer of the majority of their credits to complete a higher degree in one of these institutions.

The transfer of credits received from Mech-Tech Institute to another institution is solely at the discretion of the accepting institution. No guarantee of transfer is made or implied by Mech-Tech Institute. Credits accepted by Mech-Tech as transferred in do not affect Satisfactory Academic Progress (SAP) measurement and do not count for final GPA; the student enrolled with credits transferred will be evaluated for academic progress made

in the courses taken after the credits transfer has been approved and applied. For the courses taken, SAP will be monitored up to the maximum 150% time allowed to complete the program. SAP will be monitored every term and progress must be made according to the Institutional SAP policy. Please refer to the Policy under section 5.2.10 of this Catalog. The evaluation of credits to be transferred in has no cost and is performed during the admissions process. Credits accepted as transferred will be discounted from the total cost of the program and this is detailed in the Enrollment Agreement section 2.

#### **5.1.6.1 Credits Transfer for Technical Programs**

All graduates of our Institution who wish to enroll in any other of our programs will be given credit for classes, courses or laboratory sessions already taken that are similar to those of the new program. This, through an application process of the student, MTC/MTI evaluation, and subsequent acceptance of the student. For course credit to be awarded, no more than fifteen (15) years may have passed since the time the courses were taken. It should be noted that for course credit to be awarded, the passing grade must be at 70% or above and /or a grade of P (Passed). Candidates that have studied at another technical-vocational post-secondary institution which have an accreditation similar to that of the MTC/MTI may apply for awarding of course credit, provided they were passed with a 70% or higher grade and/or P. Students holding duly documented Associate, Bachelor's or higher degrees from accredited institutions and which classes or courses are similar to those of the MTC/MTI may apply for course credit for up to 70% of the credits for general courses and up to 30% of concentration courses and such credits will not expire.

#### **5.1.6.2 Credits Transfer Policy for Associate Degrees**

Associate Degree programs are not offered in Mech-Tech Institute of Orlando, Florida. All Mech Tech College students who have a technical degree and enroll in the Associate Degree will receive course credit for technical courses having an equivalent curricular content and that have been passed with an A or a B grade. For course credit to be awarded no more than fifteen (15) years may have passed since the time the courses were taken. Graduates of our institution who at the time of graduation from high school or the equivalent had a GPA of 2.00 or lower and who graduated from an academic program of study of Mech-Tech College with a minimum of a 2.00 GPA may apply for admission and course credit at Mech Tech College.

Students holding duly documented Associate, Bachelor's or higher degrees from accredited institutions and which classes or courses are similar to those of the Mech Tech College according to the course descriptions and curricular content may apply for course credit for up to 70% of the credits for general courses and up to 30% of concentration courses and such credits, provided that such courses were passed with a 70% or higher grade and /or a P or AP grade

Students coming from other accredited colleges who at the time of graduation from high school or the equivalent had a GPA of less than 2.00 and who currently have had the equivalent of one (1) year of post-secondary education with a minimum GPA of 2.00 may apply for admission and course credit at Mech Tech College.

#### **5.1.6.3 Credits Awarded through Challenge Tests**

Applicable only to Associate Degrees in Puerto Rico, these tests are prepared by the Mech Tech College faculty according to the Institution's curriculum and are designed to evaluate students' proficiency in the course for which he/she is requesting the test. Students who apply for course credit shall be enrolled in the institution and may not have been enrolled in the course which is to be challenged. Students will apply for the challenge test and pay the corresponding fee. The test must be passed with a grade of 75% or more. Course credit may be awarded for a maximum of 12 credits. No grade will be awarded for course credit awarded through this method and they shall be noted as "passed," using the letter P.

#### **5.1.6.4 Credits Transfer for Veterans**

Veteran students or their beneficiaries must submit the official credit transcripts of all previous institutions. The Veterans Administration will only grant two (2) semesters for the certifying officer to evaluate and grant the previous credits, if applicable. For veteran students or their beneficiaries at Mech-Tech Institute, if the student has previous studies at another institution, the request of an official credit transfer is mandatory.

#### **5.1.7 Program Transfers**

If a student transfers from one program to another, or has completed a program and continues studying in another, he or she may receive credit towards the new program of study for such credits or units as those of similar content and requirements which were taken and passed with a minimum grade of 70% (C). This, through an application process of the student, MTC/MTI evaluation, and subsequent acceptance of the student.

##### **5.1.7.1 Transfer Students in Associate Degree Programs**

MTI of Orlando, Florida does not offer associate degree programs. Students with credits from other duly authorized and accredited post-secondary institutions and colleges will be classified as transfer students if such credits qualify for the associate degree program of study for which admission is being sought. Transfer students must meet the admission requirements for new students in addition to submitting the official transcript from the institution of origin. Students with a post-secondary degree from another institution will not be required to submit a high school transcript. Their records should show that they graduated from high school.

##### **5.1.7.2 Appeals Process for the Denial of Credits Transfer**

If the credits transfer requested by the student is denied, he/she has the right to appeal this decision. The student will appeal to a member of the Admissions Office who will coordinate an interview with the Vice-President of Education and will discuss the reason as of why the transfer was denied and if there is any possibility for reconsideration.

## **5.2 REGISTRAR'S OFFICE**

The Registrar's Office offers services such as: enrollment, transcripts, course certifications, grades and satisfactory academic progress reports.

The Registrar's Office will not offer services to students who are in financial debt with the Institution or have pending documents. Once the student has complied with his or her obligations, he/she will be offered the service requested.

### **5.2.1 Enrollment**

The Registrar's Office tracks the enrollment process. Once the students are admitted, they receive instructions related to the study program and enrollment process.

The Registrar is the officer custodian of the student files. A program will not be considered valid without the Registrar's certification. Students are responsible to comply with the academic obligations listed in their class schedule.

It is mandatory that students enroll on the date and at the time assigned by the Registrar's Office. If the documents required by the Admissions Office are incomplete, the student will not be allowed to enroll.

If after the students are enrolled, there is no quorum (15 students or more) for the program applied for, the Institution reserves the right to close down that section and the students will be called as soon as such quorum (15 students or more) is completed.



### 5.2.1.1 Enrollment Policy

It is the Institution's policy to enroll students on a quarterly basis (August, November, February and May). Nevertheless, the Institution reserves the right to enroll and start new courses on other dates, depending on the availability of classrooms, professors and other resources. There will be one week for late enrollment for each enrollment period and it will vary according to the holidays.

### 5.1.2.2 Class Schedule

The Institution's class schedule is the following:

SECTION	DAYS	SCHEDULE
Day	Monday - Friday	7:30 a.m. - 1:30 p.m.
Afternoon	Monday - Friday	1:30 p.m. - 5:00 p.m.
Night	Monday - Friday	5:00 p.m. - 10:30 p.m.
Saturday	Saturday	8:00 a.m. – 5:00 p.m.

**Note: The schedule will vary according to the enrollments for each term.**

### 5.2.2 Readmissions (Re-entries)

A student, who ends or has interrupted his/her studies for a Quarter or more and is interested in resuming his/her studies, has to apply for Readmission. The applicant should fill out the appropriate form in the Registrar's Office. A student, who has been withdrawn during a Quarter or a year for academic deficiency, may apply for readmission upon the conclusion of his/her suspension period. The student will have to fill out the readmission form and undergo the respective orientation at the Registrar's Office.

### 5.2.3 Attendance Policy

As an educational Institution, Mech-Tech College expects its students to come to class as established in their class schedule and in the time specified. Student, this is for your benefit and as a future candidate for employment! Follow Mech-Tech's Attendance Policy and you will do great!

**Attendance to class is mandatory.**

#### **MINIMUM STANDARD**

In order for a student to complete or graduate from a program, the student must have a minimum of 80% attendance. The 80% of attendance is an absolute requirement. In case of absences, the student will be responsible for the material given in class

#### **TRACKING**

Faculty shall take daily attendance and maintain an attendance record of all students. Attendance is tracked in every class by instructors using a form provided by the institution (Attendance Roster). Faculty will report daily attendance of all students and the Registrar office will input that information in the student information system. Faculty will also report all students who fail to attend class or have never attended. The cumulative attendance information is monitored each term and those students with an attendance record below 80% are informed so in writing, they will sign the advisory letter titled Attendance Commitment, which also warns them that failing to meet the requirement will result in an administrative withdrawal. Externship attendance is tracked by sign in sheets which have to be certified by the site supervisor and externship coordinator.

In case of absences, the student will be responsible for make-up of the work presented or required in class.

## **TARDIES AND EARLY DEPARTURES**

Mech-Tech expects students to be in class on time. When you arrive late to class you not only miss the material that has been presented, but you disrupt both the instructor and your fellow students. When a student is tardy or leaves early, the teacher shall record the tardiness or early departure from the classroom in the attendance record. The time incurred in tardiness or early departure shall be deducted from class time, rounded to the nearest quarter of an hour and every four quarters will be equal to one absence. (Example: a student arrived 15 minutes late four times, that is equal to a one-hour absence.)

## **ACCEPTABLE (JUSTIFIABLE) ABSENCES**

The Institution considers the following to be justified absences:

- Student's illness,
- Unforeseen accidents,
- Serious illness or death of a member of the immediate family,
- Circumstances beyond the student's control, and
- Extra hours at work or training hours for a pre-determined period of time
- Court or government agency appointment

What is previously mentioned IS NOT an exemption for the student to comply with the minimum 80% attendance required for graduation. Remember, the 80% of attendance is an absolute requirement; even when there are absences that can be justifiable, cumulative attendance for graduation can never be below 80%. All students who are absent to class must present evidence that will be evaluated by the Attendance Coordinator, Counselor, or an authorized school representative. The absences considered *due to circumstances beyond the student's control* will be evaluated individually by personnel from the Vice Presidency of Student Affairs and it will be determined if it is justifiable enough to assign the make-up work.

## **CONSECUTIVE ABSENCES – (14-day Policy)**

A student who is absent for fourteen (14) calendar days without justification, can be **administratively withdrawn**. Calendar days include weekends and holidays as well as class days.

Students who are absent to class must be justified within a period no greater than three (3) days after the date of the absence.

## **CONSEQUENCES OF NOT MEETING ATTENDANCE REQUIREMENT**

Since cumulative attendance is monitored at the end of every term, an advisory letter titled Attendance Commitment will be issued to any student with a percentage of attendance that is below 80%. In case that a student does not meet the minimum 80% required, will be evaluated before processing his/her enrollment, will enter an orientation process, and will sign an Attendance Commitment with a specific plan that will be monitored periodically by the Vice Presidency of Student Affairs. After exhausting all reasonable efforts, if the student does not comply with the minimum attendance requirement, he/she will be administratively withdrawn (terminated). If as part of the enrollment process for students going to the last term, it is determined by the Registrar that a student has no foreseeable possibility of meeting the cumulative 80% of attendance requirement upon completion of the program, this will be communicated to the student in writing because it is potential for an administrative withdrawal (termination). An **administrative withdrawal** will be processed to the student.

## **TERMINATIONS DUE TO POOR ATTENDANCE: Impact on Financial Aid**

The Registrar's Office will inform the Financial Aid Office of the withdrawals processed within the term required by the United States Department of Education -within 14 calendar days from the last day of attendance.

## **MAKE-UP WORK FOR ABSENCES**

The student will be entirely responsible for making up work due to legitimate absences. The instructor will provide the student with the work that was given in class so that the student can complete the task and make-up for the time lost. The student will have until the twelfth week of the term for programs measured in quarters and the fifteenth week for semesters, to make up for the absences incurred in such term.

New students, who begin classes during the late enrollment period, will be given the opportunity of providing an assignment as make-up work. The list of students that completed their enrollment in the late period according to the Academic Calendar will be provided to the Counselor or Retention Officer who will work the orders for make-up work, as applicable.

## **EXCEPTIONS**

When the academic calendar issued by the Office of the Vice-President of Education has an academic recess of five (5) school days or more, the date of determination will be when the student complies with the 14 days after the last day of attendance without counting the academic recess. In case that the student notifies the Institution his/her desire of not returning to class, after providing orientation to the student regarding the Withdrawals Policy, the Registrar's Office will process the withdrawal immediately.

## **LEAVE OF ABSENCE**

Students have the right to apply for a leave from studies in cases of emergencies, illness or due to maternity. The leave application shall be submitted to the Registrar's Office with the medical documentation that applies. The leave of absence cannot exceed 180 days or more than half the program length (for programs of study which length is less than a year), whichever is shorter. Leaves will not be authorized beyond the ending date of the term unless the case requires it, and it is previously authorized by the Director. In the event that the student does not show up for class upon the termination of his/her leave, he/she will be processed and as an administrative withdrawal.

The procedure to request a Leave of Absence (LOA) is:

- The student must complete and hand-in the application provided by the Registrar's Office.
- The student must provide evidence that supports the reason to request a LOA and that it is related to the information provided in the application.
- Specify the date in which the student wishes to return to classes.
- The application will be evaluated by the Registrar and the Director and the decision will be notified to the student.
- The student is then referred to the Financial Aid and Finance Offices for individualized orientation.

There are no financial consequences for the student during and after the LOA.

If the student is veteran or a beneficiary, he/she will be withdrawn from the study benefit during the leave of absence; upon his/her return, the study benefit will be reinstated.

If a student receives notification that he/she has been activated by the United States Military Service and/or the National Guard, he/she must notify it to the Registrar's Office in advance and provide evidence accordingly. The Registration Officer will provide an orientation regarding: enrollment cancellation, academic progress, enrollment costs, and reasonable placement; among others. The student will be responsible of informing at the beginning of each term that he/she is a member of the military.

For Veteran students at Mech-Tech Institute, who for any reason miss more than 20% of the total scheduled course hours in a calendar month, are considered to be in violation of the attendance policy. The student will be placed on attendance probation for one (1) month for unsatisfactory attendance. In order to show that the cause of unsatisfactory attendance has been removed, students must show good attendance (as defined) for one calendar month afterwards. If the student fails to meet attendance standards the following month, he/she will be terminated from their VA education

benefits for unsatisfactory attendance. The LDA that will be reported to VA is the day before the student missed more than 20% of this scheduled hours while on probation.

#### **5.2.4 Withdrawals**

The Institution will apply the Refund Policy to those students who interrupt their studies or are expelled.

A student, with satisfactory progress at the time he/she is expelled, may apply for re-enrollment and will be considered to continue his/her studies.

A student, who does not meet satisfactory progress at the time he/she is expelled, will be placed on probation for a period of one (1) quarter whenever he/she is accepted for re-enrollment. This readmission will be submitted to the Admissions Office and must be approved by the Registrar.

For veteran students and their beneficiaries, the effective date of a withdrawal, license for illness, military license, etc., will be the last day of attendance.

##### **5.2.4.1 Voluntary Withdrawals**

A student can withdraw at any time and must receive the approval of: the Registrar Office, the Finance Office, the Financial Aid Office, Counseling, and the instructors. He/she must turn in the withdrawal form in the Registrar's Office, where the withdrawal will be made official, and it will be kept in the student's academic file with a W (Full Withdrawal).

##### **5.2.4.2 Administrative Withdrawals**

Administrative withdrawal is an action taken by the Registrar Office to process a withdrawal to a student who does not comply with institutional rules, policies, and procedures after all resources are used in order for the student to normalize his/her situation. Administrative withdrawals apply to the following cases:

- Financial debt with the Institution
- Consecutive unjustified absences
- Breach of contract
- Unsatisfactory Academic Progress (Attendance / Average)
- Breach of the probation status in the case of academic progress
- Improper behavior towards faculty or administration members, students and/or visitors
- Inconformity with the Institution's rules and requirements
- Health problems

#### **5.2.5 Termination of Studies**

A student will terminate his/her studies when:

- He/she finishes the total of academic credits, according to the program and contract
- Upon voluntarily withdrawing
- Upon being administratively withdrawn or expelled
- If the student fails to comply with the conduct policies established by the Institution or he/she is submitted to expulsion

## 5.2.6 Graduation Requirements

### 5.2.6.1 Technical Programs

- In order to complete or graduate from a program the student must have a minimum standard of attendance of 80%.
- Complete the total of credits in their study program with a cumulative grade point average of 70% (C) and must have maintained satisfactory academic progress.
- Must have filled out all the documents required by the Institution.
- Pay the graduation fee to assist to the Graduation

In order to receive a diploma, credit transcript, studies certification and/or any official document from our Institution, a student **must not be in financial debt with the Institution.**

During the graduation ceremony, a symbolic diploma is handed to students. This ceremony is carried out once a year.

### 5.2.6.2 Associate Degree Programs

Associate Degree programs are not offered in Mech-Tech Institute of Orlando, Florida. All graduation candidates must meet the requirements established by the Institution. The following requirements have been established:

- Submit a Graduation Application to the Registrar's Office on the dates set forth on the Academic Calendar during the last Quarter of their studies for an evaluation of credits.
- In order to complete or graduate from a program the student must have a minimum standard of attendance of 80%.
- Successfully pass the total of credits in their study program with a general grade point average (both general and for graduation) of 2.00 or 70% (C) in the maximum time stipulated in the Institution's Satisfactory Academic Progress Policy.
- Pay the graduation fee.

In order to receive a diploma, credit transcript, studies certification and/or any official document from our Institution, a student **must not be in financial debt with the Institution.**

During the graduation ceremony, a symbolic diploma is handed to the students. This ceremony is carried out once a year.

Veteran students and their beneficiaries must complete their program of studies in its regular time. A student who extends the regular time of the program cannot continue to receive Veterans benefits; on the contrary, if the student receives financial aid (Pell Grant), this will not affect his/her Pell Grant benefits and can benefit from the .50% additional time stipulated in the Title IV regulations. The participant must be evaluated by using the veterans and Pell Grant criteria if the student benefits from it.

## 5.2.7 Academic Affairs

### 5.2.7.1 Definition of Academic Year

The Institution's academic calendar is divided in four twelve-weeks terms (3 months). At the present time, the Institution divides the calendar in the following manner:

- A. Programs of study are divided in quarters with a minimum length of 10 weeks and a maximum of 13 weeks per quarter.

The Federal Government defines the academic year as: “A time period of 36 weeks in which a student is expected to complete at least 36 credit hours in a technical program.”

Based on this, the Institution defines its academic year as one of 36 consecutive weeks. All students are expected to study for three consecutive quarters according to the program they selected to complete one academic year, for purposes of Financial Aid, and may be entitled to the disbursement of the total aid granted for that academic year, **according to their academic load**, if they meet all other eligibility requirements.

#### **5.2.7.2 Unit of Credit**

The unit of credit used is the credit hour. One contact hour lasts for 50 minutes during a 60-minute hour. The institutional policy is to provide ten (10) minutes of break after each fifty (50) minutes of class and twenty (20) minutes of break after one hundred (100) minutes of class.

For programs in quarter credits: 1 credit = 20 hours of conference, laboratory, and/or practice.

The same conversion applies to the Occupational Laboratory Experience and Practice in the Industry courses.

#### **5.2.7.3 Academic Load**

A student’s regular academic load is 12 credits. Extraordinary cases must have the approval of the Dean or Director. In the event that the student changes his/her academic load, his/her satisfactory academic progress will be evaluated individually. For each course the student will accrue the value in credits that the course has assigned.

A student who wishes to exceed the number of credits established in his/her program of studies must have the Registrar’s permission.

The amount of matriculated credits in one academic term (quarter) can be:

Academic Load	Credits
Full-Time	12
Three fourths of the time	9-11
Half of the time	6-8
Less than half of the time	1-5

#### **5.2.7.4 Length of the Programs of Study**

Technical courses offered by the Institution range from 12 credits (12 weeks) up to 60 credits (60 weeks). The Associate Degree Programs range from 12 credits (12 weeks) up to 90 credits (90 weeks).

#### **5.2.7.5 Language of Instruction**

The official language of instruction in Puerto Rico is Spanish. The official language of instruction for Mech-Tech Institute of Orlando, Florida are English and Spanish (Bilingual). Completing a program in a language other than English, may reduce employability where English is required.

#### **5.2.7.6 Number of Students per Group**

The number of students per group varies depending on the subject to be taught, physical facilities, methodology to be used, available equipment, and the instructor’s abilities. Groups are organized in

the following manner: academic courses, from 20 to 30 students; laboratory courses, from 15 to 20 students.

#### 5.2.7.7 Grading System

The system for evaluating academic work performed by the students, in workshops, practice or laboratory is based on percentage (%) and is expressed according to the following table:

PERCENTAGE	DESCRIPTION	=	GRADE
100 - 90	Excellent	=	A
89 - 80	Good	=	B
79 - 70	Average	=	C
69 - 60	Deficient	=	D
59 - 0	Failed	=	F

Grades for transferred courses are not considered when calculating the student's general grade point average. Upon the end of each term, the instructors will hand-in the grades report to the Registrar's Office who will hand it in to the students.

#### 5.2.7.8 Selection of Courses

The Institution recommends following the curricular sequence, which is presented in each program's curriculum. In addition, the pre-requisites must be strictly followed in the order established. At the time a student enrolls for each term, a sequence is already set-up and selected.

#### 5.2.7.9 Enrollment and Class Program Changes

The Institution's Academic Calendar provides the enrollment process dates. Students who require program changes will be allowed to do this during the changes and late enrollment period.

Students, who need a change in sessions after enrolling, must request it to the Registrar's Office where the case will be evaluated and a course of action will be recommended. The Registrar is the only person authorized to make changes in student schedules and class programs.

#### 5.2.7.10 Grades

The Institution's grading system is the following, in which alternate grades are established for particular situations:

Grade	Equivalence	Value
I	Incomplete	Does not affect the average or percentage until it is removed.
P	Passed	Value in credits – without affecting average.
NP	Not Passed	Must be repeated, does not affect the average, neither does it affect the percentage of credit hours attempted and passed.
WA	Administrative Withdrawal	Withdrawal - affects the percentage of credit hours attempted and passed.
W	Official Withdrawal	Withdrawal - affects the percentage of credit hours attempted and passed as well as Satisfactory Academic Progress
T	Transfer	Does not affect the general average or graduation

		average. Not taken into account for Satisfactory Academic Progress.
R	Repeated	Next to a grade indicates a repeated course.
NR	Never attended	Student did not attend class. Partial cancellation; does not affect the percentage of attempted and passed credits.

#### 5.2.7.10.1 Definition of Grades

- ✓ **I - INCOMPLETE** - This is given when in the professor's judgment there is justification for which the student was unable to complete all course requirements. The professor shall calculate the grade, which the student had up to that time and will allocate 0 to the missing requirement. S/he shall report "I" to the Registrar and next to the grade. The student must officially apply for the incomplete removal in the Registrar's Office, shall pay the corresponding charges and fill out the form. Removal of an incomplete is the student's responsibility. The student must request the removal two weeks after the end of the term or academic period except in extraordinary cases where the student has a justified cause. She/he shall coordinate the removal with the professor, after paying the fee. Failure to comply with this procedure will result in the final awarding of the grade.
- ✓ **P- PASSED** - Given in those cases in which the course does not require a grade. Carries academic credits, but does not affect the computation of the grade point average. Courses accredited on the basis of experience [or] passed through the Challenge Exam are also graded "P".
- ✓ **NP-NOT PASSED** - Given in those cases in which the student does not pass the requirements of a course for which the grade is Passed or Not Passed.
- ✓ **W- OFFICIAL WITHDRAWAL** - Given in a course from which the student files for an official withdrawal.
- ✓ **WA – ADMINISTRATIVE WITHDRAWAL** – given to students who have excessive absences, disciplinary sanctions or other reasons.
- ✓ **R - REPEATED** - Next to a grade indicates a repeated course.
- ✓ **T – TRANSFER** - Given in those cases in which the course has been validated by transfer and does not require a grade. Carries academic credits, but does not affect the computation of the grade point average. Courses accredited by transfer are graded "T".
- ✓ **NR – NEVER ATTENDED** – Given in cases when the student never reported to class. It is a partial cancellation and affects the percentage of attempted and approved credits.

#### 5.2.7.11 Claims Regarding Grades

A student who feels that an error was committed in the grading of a course may ascertain the same by following the proper process. The student must present a claim within two weeks after receiving the grades.

- The student shall ascertain the grades reported by the instructor with the Registrar's Office.
- The student will request to the Registrar's Office the Grades Revision form and will make the corresponding payment in the Collections Office. The instructor will revise his/her records and will confirm in the form if there was an error and if there is an adjustment to the grade.
- Should the error be confirmed, the instructor shall report this through the grade change form. The form shall be submitted to the Registrar's Office through the Dean or Director for the corresponding process.



### **5.2.7.12 Grade Change**

An instructor, who commits an involuntary error in awarding a grade to a student, must submit the grade change form to the Registrar's Office with the respective justification and the signature of the Dean or Director. The process must take effect before the closing of the immediate quarter for which it was granted.

### **5.2.7.13 Repeated Courses**

Courses graded with (F) or (NP) have to be repeated. When repeating a course, the highest grade will be the one used in the computation of the Grade Point Average; nevertheless, the lowest grade remains in the academic file with the indication that it was repeated (R). The student is entitled to cover the cost of the courses through federal funds only once. In cases in which they are taken for the third time, the student will have to defray the cost of the course.

## **5.2.8 Satisfactory Academic Progress**

To comply with Satisfactory Academic Progress (SAP) in Mech Tech College, the student must comply with minimum standards to satisfactorily complete the program of study while being matriculated. The Institution requires that the student satisfactorily completes all courses to be able to graduate from the academic program with an average or academic percentage equivalent or higher than "C" (70% or 2.00). The academic progress rules apply to all full-time or part-time students matriculated in regular programs and are evaluated cumulatively during all the periods attended in the Institution. The students are notified of their academic progress upon completing each academic period.

### **Satisfactory Academic Progress Policy**

Mech-Tech College/Mech-Tech Institute require that all students comply with a minimum requirement for Satisfactory Academic Progress (SAP). To measure this progress, the Institution has established minimum parameters for each program of study based on:

- The normal length of the study program.
- The maximum length of the study program which is 1.5 times the normal length.
- Qualitative and cumulative Satisfactory Academic Progress shown by the student's grade point average per term.
- Quantitative Satisfactory Academic Progress of the academic load registered per quarter, showing an increase in the credits passed by the student.

To complete this evaluation, we have developed tables that establish the minimum requirements and percentage of credits and accumulated grade point average for each program.

The academic programs are divided based on the number of credits required and the length. The academic work of each student will be evaluated cumulatively against the standards on the tables by following the process described below:

- a) An evaluation table will be maintained in each student's record which registers his/her Satisfactory Academic Progress for each term
- b) Credits attempted will be considered all of those that the student has matriculated in no matter if they are classified as: W = Total Withdrawal; WA = Administrative Withdrawal, and F = Failed
- c) The *DiamondSIS* database provides an academic progress calculation form for each regular student

- d) For students with credits transferred, failed, and/or repeated, a manual evaluation is done each term which is also maintained in the student's record
- e) Students who fail to meet SAP will be notified in writing and an appointment will be scheduled with the purpose of explaining the Policy and its processes and the consequences of failing to meet SAP again. The following process is followed:
  - a. The student is oriented and placed on Academic Warning
  - b. A written notification is given; the student signs the notification which is filed in the student academic record
  - c. A probation *Warning* is placed in the electronic record and the warning period is entered
    - i. During the Academic Warning period, the student must improve attendance and grades and must show interest in his/her studies
    - ii. Support will be provided through tutoring, if so requested, in addition to follow-up from the Counseling Office
  - d. Upon completing the Probation/Warning, attendance and grades are evaluated to determine if the student meets the standards of the Progress table; if it is determined that he/she does not comply, an Administrative Withdrawal will be processed.

This Policy also applies to Veteran students and their beneficiaries. The Veterans Administration offers benefits only to study the required courses of the program in which the Veteran is matriculated.

This Policy also applies to Veteran students and their beneficiaries. The Veterans Administration offers benefits only to study the required courses of the program in which the Veteran is matriculated.

Please refer to the following Satisfactory Academic Progress tables:

**EVALUATION TABLE FOR SATISFACTORY ACADEMIC PROGRESS  
36 CREDITS PROGRAM  
(36 CREDITS PROGRAM and 3 TERMS - MAXIMUM 54 CREDITS and 4 TERMS)**

<b>Evaluation Period</b>	<b>First Evaluation</b>	<b>Second Evaluation</b>	<b>Third Evaluation</b>	<b>Fourth Evaluation</b>
Attempted credits	12 cds	24 cds	36 cds	48 cds
The student must approve minimum of credits	70%	80%	90%	100%
With a minimum accumulated of	60%	70%	70%	70%

**EVALUATION TABLE FOR SATISFACTORY ACADEMIC PROGRESS  
(48 CREDITS PROGRAM - 4 TERMS MAXIMUM 6 TERMS – 72 CREDITS)**

<b>Evaluation Period</b>	<b>First Evaluation</b>	<b>Second Evaluation</b>	<b>Third Evaluation</b>	<b>Fourth Evaluation</b>	<b>Fifth Evaluation</b>	<b>Sixth Evaluation</b>
Attempted credits	12 credits	24 credits	36 credits	48 credits	60 credits	72 credits
The student must approve minimum of credits	40% 4 credits	50% 12 credits	65% 23 credits	75% 36 credits	80% 38 credits	100% 48 credits
With a minimum accumulated of	60%	63%	70%	70%	70%	70%

**EVALUATION TABLE FOR SATISFACTORY ACADEMIC PROGRESS  
(60 CREDITS PROGRAM - 5 TERMS MAXIMUM 7 TERMS – 90 CREDITS)**

<b>Evaluation Period</b>	<b>First Evaluation</b>	<b>Second Evaluation</b>	<b>Third Evaluation</b>	<b>Fourth Evaluation</b>	<b>Fifth Evaluation</b>	<b>Sixth Evaluation</b>	<b>Seventh Evaluation</b>
Attempted credits	12 credits	24 credits	36 credits	48 credits	60 credits	72 credits	90 credits
The student must approve minimum of credits	40% 4 credits	50% 12 credits	65% 23 credits	75% 36 credits	80% 48 credits	90% 54 credits	100% 60 credits
With a minimum accumulated of	60%	63%	65%	70%	70%	70%	70%

**EVALUATION TABLE FOR SATISFACTORY ACADEMIC PROGRESS  
FOR ASSOCIATE DEGREE OFFERINGS  
(90 CREDITS PROGRAM - 8 TERMS MAXIMUM 12 TERMS – 135 CREDITS)**

<b>Evaluation Period</b>	<b>First Evaluation</b>	<b>Second Evaluation</b>	<b>Third Evaluation</b>	<b>Fourth Evaluation</b>	<b>Fifth Evaluation</b>	<b>Sixth Evaluation</b>	<b>Seventh Evaluation</b>	<b>Eighth Evaluation</b>	<b>Ninth Evaluation</b>	<b>Tenth Evaluation</b>	<b>Eleventh Evaluation</b>	<b>Twelfth Evaluation</b>
Attempted credits	12	24	36	48	60	72	84	90	102	114	126	135
The student must approve minimum of credits	40% 4	50% 12	65% 23	75% 36	80% 48	90% 64	90% 79	90% 81	95% 85	95% 85	95% 85	100% 90
With a minimum grade point average of	1.00	1.15	1.15	1.25	1.25	1.25	2.00	2.00	2.00	2.00	2.00	2.00

**5.2.8.1 Warning**

If a student does not comply with Satisfactory Academic Progress during an academic term, he/she will be placed in *Warning* during the next academic program. The student will receive orientation and will be notified in writing. During this period, the student will be monitored by the Counseling Office and will be provided tutoring to improve his/her academic deficiencies. Upon completing the Warning period, the student will be reevaluated to determine if he/she complies with Satisfactory Academic Progress.

If when completing the academic term, the student still does not comply with Satisfactory Academic Progress, he/she will be withdrawn from the Institution.

**5.2.8.2 Appeals Process**

If the student does not comply but expresses interest in continuing studies, he/she will be evaluated by a committee to determine the possibility of continuing studies. If evaluated positively, the student is placed on Probation with an Academic Plan and is guided throughout the process. If the student does not comply upon completing this period, he/she will be administratively withdrawn.

A student, who after completing the Warning period, has been withdrawn for not complying with SAP, will have the right to appeal such determination. The student must submit the appeal in writing (the form will be provided) to the Registrar’s Office together with the documentation that supports the appeal. The appeal must be received within two (2) work days from the date of the notification. An Appeals Committee will meet within three (3) work days from receiving the appeal. The committee will be composed of the Counselor, a Registration Officer, and an instructor, and all mitigating circumstances presented will be evaluated; among these:

1. Prolonged illness
2. Physical impairment or temporary mental condition that does not allow the student to move
3. Student and/or family member's illness that does not allow satisfactory learning
4. Death in the family, a spouse and/or tutor
5. Drastic change in the financial situation of the family
6. Divorce of the parents and/or the student
7. Drastic personal problems of which the student has no control
8. Military License

A decision regarding the request will be communicated in writing. If the request is approved, the student will be placed on a Probation period and can continue to receive financial aid during the term.

### **Reinstatement**

If the student was withdrawn due to not complying with the Satisfactory Academic Progress Policy and he/she notifies the Institution of his/her desire to be reinstated, he/she can request it through a Re-Entry Application. For the student to be reinstated in the Institution, he/she must be interviewed by the Counselor who will evaluate the student's desire to continue his/her education and a committee will be called to determine the student's academic ability of progressing in the program again. If the student is reinstated, he/she will be classified under Probation for one (1) academic term and will be evaluated in the next evaluation period to determine his/her new Progress status.

#### **5.2.8.3 Probation Period**

A student that did not comply with Satisfactory Academic Progress and his/her appeal is approved, will be placed on probation with an Academic Plan for his next academic term and will be notified in writing. If upon completion of the probation it is determined that the student did not comply with Satisfactory Academic Progress or did not comply with the Academic Plan, the student will be withdrawn from the Institution. If on the contrary, upon completing the evaluation period of the student's probation the student achieves Satisfactory Academic Progress and/or complies with the Academic Plan, the probation will be withdrawn; nevertheless, the student will continue with the established academic plan until completing his/her academic program. While a student is on probation, he/she is considered as complying with Satisfactory Academic Progress and will be eligible for Title IV funds.

### **Academic Plan**

A student who appeals after a Warning period and such appeal is approved, will receive an Academic Plan according to the availability of courses and must approve it to be in compliance. The student will be evaluated during each academic term by the Counselor.

#### **5.2.8.4 Student Withdrawal by the Institution**

If after a Probation period the student does not comply with Satisfactory Academic Progress and does not submit and appeal or such appeal is denied, he/she will be withdrawn from the Institution as well as a student who does not comply with the Academic Plan established as consequence of an appeal.

### 5.2.8.5 Repeated Courses

The Institution has established the policy that any student, who obtains a deficient grade in a given course of his/her study program, will have the opportunity to repeat the course using Title IV funds up to two (2) times. Those students, who obtain a grade that is not satisfactory, will have the opportunity of repeating it once (1). After repeating the course, the higher grade will prevail, and Title IV funds can also be used for this purpose. If a third (3) time occurs, it is the student's responsibility to pay for the course. Course repetition will depend on the availability of the courses offered by the Institution.

The Veterans Administration will not pay for previously approved courses; only for failed ones ("F" and "NP"). The concentration courses where a minimum approval grade is required will be the only ones that the Veterans Administration will pay for their repetition.

### 5.2.9 Student Conduct

Each student in the Institution has education and learning rights. This transcends the classroom and encompasses his/her possible relationships and experiences with classmates, instructors, personnel and the community in general. The student's fundamental duty consists of exercising his/her academic rights, and to behave in such a way that his/her conduct will not harm other members of the institutional community. Disciplinary actions may take effect regarding student conduct; if a student does not agree with the action taken, he/she has the right to an appeal. At all times, the student will follow the rules and procedures established in the Students' Handbook.

### 5.2.10 Students' Right to Review Records

Our students have the right to examine all of their academic files or records kept by the Institution, notifying the Office of the President in writing at least ten (10) days before the proposed date of examination. If a student disagrees with any information or document in the student's file, the student has a right to express his or her opinion regarding the information or document at least within ten (10) days of the date on which the file was examined. In this case the student shall notify comments in writing to Office of the Registrar expressing the reasons for disagreeing with the information in his or her file. The Institution will answer the student within ten (10) days after receiving notification from the student. All relevant documentation will be kept in the student's file.

#### 5.2.10.1 Confidentiality of Documents

The United States Congress enacted legislation that is applicable to all institutions that receive federal funds, the Family Educational Rights and Privacy Act of 1974 and the Buckley amendments, establishing students' rights to privacy of the files kept by educational institutions.

- To whom the information may be disclosed
- The kind of information that may be disclosed

Under the law, the institution may only provide information and access to such files without authorization by the student only to the following:

1. Officers of the Institution with a legitimate educational interest {34 CFR 99.31(a)(1)}. The criteria for determining who are considered officers of the Institution, and who are considered to have "a legitimate educational interest" are in 34 CFR 99.7(a)(3)(iii).
2. Exceptions (no prior consent required) to provide access to the records are the following:
  - a) Parents of dependent students as defined in the ISIR (if claimed on income tax returns) {34 CFR 99.31(a)(8)}, whether or not the parent has custody.

- b) Auditors that have been duly contracted by the Institution, who must sign the document in appendix # every time a file or record is reviewed.
- c) Representatives of the accrediting agency in formal accreditation/re-accreditation visits.
- d) Officers of the Federal Department of Education
- e) Marshals with a court order.
- f) A court order to provide information or testimony in court.
- g) Officers designated by the Office of the Inspector General (OIG).
- h) A student's information may be provided to the Office of the Ombudsman without prior consent in the course of addressing a complaint made by the student regarding a student loan under Title IV programs.
- i) A student's information may be provided to the state attorneys if the student is accused of submitting false information to obtain state financial aid.
- j) The prohibitions of this Law are not focused on individuals but on purposes; therefore, if it is a matter of an investigation or prosecution of a person suspected of a crime, such as terrorism, then, information may be divulged without the student's consent (or the parents, if applicable).

### 5.2.11 Complaints or Grievances

Students are free to file a complaint or grievance with the Administration regarding situations that they feel are affecting their ability to carry out their studies. This can be presented verbally or in writing to the Institution's Counselor, Vicepresident of Student Affairs, Vicepresident of Education or Campus Director. Once presented, the Vice-President of Student Affairs will conduct an immediate investigation and will inform the grievant of the findings and action to be taken. The Institution has ways to facilitate the filing of complaints or grievances by students.

The Institution has several forms to facilitate the complaints and/or grievance process of students. If for any reason, students do not agree with an action taken by the Institution when solving a presented matter, they can contact the Accrediting Agency, ACCET at: *Accrediting Council for Continuing Education and Training* (ACCET), 1722 N Street NW, Washington, DC 20036, número de teléfono (202) 955-1113.

For Mech-Tech Institute of Orlando, Florida, students are instructed to contact the Accrediting Agency at: Accrediting Council for Continuing Education and Training (ACCET), a: 1722 N Street NW, Washington, DC 20036 and/or by calling (202) 955-1113; in addition, they may contact the Licensing Agency: Commission for Independent Education (CIE) a: 325 W. Gaines Street, Ste. 1414 Tallahassee, Florida 32399-0400; with phone number (888) 224-0084.

## 5.3 FINANCIAL AID OFFICE

The Financial Aid Office facilitates students' financial alternatives that can help them defray their education costs. Financial Aid staff at MTI offers service in Spanish and English.

MTC/MTI administers different programs of federal aids and grants financial aid benefits within the limits established by the source of funds, to students who meet the requirements established to obtain such aid. The eligibility of the financial aid applicants is revised on an annual basis.

The "Free Application for Federal Student Aid" (FAFSA) is obtained at no cost and can be completed through the web page [www.fafsa.ed.gov](http://www.fafsa.ed.gov). MTC/MTI's code is 030255.

The Institution will use the application results to grant additional financial aid of federal, local, and institutional funds to eligible students. The application to this program is essential for the student to be considered to receive additional financial aids.

### 5.3.1 Financial Aid Programs

At our Institution students receive financial aid under Title IV of the US Department of Education, if eligible.

- ✓ **Federal Pell Grant-** This program was established by the US Department of Education as the keystone of the financial aid programs for undergraduate students who do not have a bachelor's degree or its equivalent or a first professional degree. This grant provides funds that do not have to be reimbursed by the student. The eligibility of the student is determined by a uniform formula which treats all applicants consistently.

The results of the FAFSA (Free Application for Federal Student Aid) are received electronically in the Institution and determine students' eligibility. If the grant application is received for verification, the student must provide additional information, as requested.

The Financial Aid Office at the Institution is available to answer questions that the students may have regarding their financial aid. Once a student has received orientation on financial aid services, it is his/her responsibility to take the necessary steps to apply for the aid. The payment is then accredited to the student's account (subsidiary) at the Institution.

It is the student's discretion to visit the Financial Aid Office for orientation and guidance on how to fill out the application.

The FAFSA can be submitted through:

- The branch campus (sends electronic application by using EDEXpress – If you are a new enrollment student and wish for the branch campus to send the application electronically, you must visit the Financial Aid Office of the branch campus you are interested in studying at and present income evidence of the two fiscal years prior to the year in which you are applying for Financial Aid; both the student's and their parents', if applicable. For example, if applying for the year 2018-2019, you must present income evidence for the fiscal year 2016. This is performed in those cases where an unusual situation arises. For example: when an "override" is conducted, the applicant or the parents are experiencing difficulties with signing their FAFSA electronically.
- Through the Internet by using the FAFSA on the web – The webpage of the United States Department of Education is free-of-charge; you can use it to fill out the FAFSA online and send it through the internet. You can access the FAFSA on the web by using a computer with internet access. The webpage address is: <http://www.fafsa.gov/>.

Upon accessing the FAFSA on the web, you can provide your information directly to the Central Processing System (or CPS) of the United States Department of Education who will process the request within 72 hours.

- By downloading the mobile application myStudentAid from the Apple App Store (iOS) Google Play (Android).

In order to download the app by accessing either Google Play or the Apple Store, you may use the following links.

- [Google Play](https://play.google.com/store/apps/details?id=com.fsa.mystudentaid) \



- [Apple App Store](https://itunes.apple.com/us/app/mystudentaid/id1414539145)  
<https://itunes.apple.com/us/app/mystudentaid/id1414539145>

Any student transferring from other postsecondary institution(s) will have his or her financial record retrieved from either NSLDS or COD with the purpose of determining the amounts of grant for which he or she is eligible for the current year.

- ✓ **Federal Supplementary Educational Opportunity Grant (FSEOG)** – This Federal program provides additional money through grants to help undergraduate students. It is a grant that provides money that does not have to be reimbursed by the student and the payment is credited to the student’s account at the Institution.

Availability of funds – the amount that will be assigned to each student will be determined by the institution, in compliance with federal regulation. The amount of aid will not be greater than the student’s financial need. The aid disbursed under this program will be primarily used to cover the student’s tuition costs.

- ✓ **State’s Student Financial Aid Program Administered by the Council on Education of Puerto Rico – Students with Academic Talent Grant (BETA)** – The Council on Education of Puerto Rico offers different financial aid programs to students. Currently, our institution takes part in the *Students with Academic Talent Grant Program* (or BETA, by its Spanish acronym). This Program’s purpose is to award financial aid to those eligible students possessing a GPA of 3.00 or greater, evidencing financial need, and enrolled at participating institutions. The aid will supplement all other funds that students will receive through Federal, State, institutional, or other private financial aid programs.

- ✓ **Federal Work and Study Program (FWS)** – Under this program, a student can study and earn money in order to pay for his or her education. The program presents the following features:

- Allows students to work part-time while studying
- Helps paying for costs of study
- Both full-time and half-time students can participate
- The program promotes, as far as possible, community service as well as jobs related to the student’s program of study

The number of hours to be worked will be determined according to the student’s financial need, as per the HEA; the student’s school schedule and academic performance will be taken into account as well. The wage rate that the student receives through the program will be at least equal to the current Federal minimum wage. FWS wages will be paid once a month.

It is recommended to select the Federal Work-Study option while filling out the Free Application for Federal Student Aid (FAFSA).

- ✓ **Direct Loan** – This loan is directed to the student and requires filling out the Free Application for Federal Student Aid (FAFSA). The program consists of Direct Subsidized Loans and Direct Unsubsidized Loans, and the student is responsible for repaying his or her loans. Its purpose is to pay for differences in costs of study not covered by other available aids. The loan can be granted according to a lower or equal amount of unmet need, but never greater. The Institution will examine the results of the application and will inform if it meets the requirements to receive the aid. If the student complies with the criteria, he or she will sign the Master Promissory Note (MPN), a legally binding document that details the conditions under which the student accepts to obtain and repay the loan in its entirety, plus the interests that accrue (Unsubsidized loans) while he or she is still in-school. This loan requires filling out the entrance and exit counseling forms. The total amount of the loan will be divided in equal parts for the academic year for which the student is enrolled and will be deposited in the Institution’s account. If a refund towards the student is issued, it will be

processed to the student's name through a check in a period no greater than fourteen (14) days. If the student processes a withdrawal or is withdrawn by the Institution, the loan portion of granted funds must be considered when processing R2T4; this is done in the same way that funds granted by FSEOG/PELL are processed. All students who wish to request this loan will be provided with a detailed and explicit orientation regarding their obligation to repay the loan, the current interest rates, and the available repayment options. This orientation will be provided to the student by the Financial Aid Office.

- ✓ **Direct Plus Loan** – This loan is offered to parents of dependent students and it will be issued under the parents' name. Filling out a Free Application for Federal Student Aid (FAFSA) is required. Its purpose is that parents can pay for the differences in costs of study not covered by other available aids. The loan can be granted according to a lower or equal amount of unmet need, but never greater. To issue this loan, there is a waiting period of thirty (30) days prior to its disbursement. The loan does not require filling out the entrance and exit counseling forms, but is subject to both credit approval and submission of the "Master Promissory Note" (MPN) instead. The total amount of the loan will be divided in equal parts for the academic year for which the student is enrolled and will be credited to the Institution's account. If there is any refund, it will be issued under the parent's name through a check in a period not greater than fourteen (14) days. If the student processes a withdrawal or is withdrawn by the Institution, the loan portion of granted funds must be considered when processing R2T4; this is done in the same way that funds granted by FSEOG/PELL are processed. A parent who wishes to apply for a PLUS Loan will be provided a detailed and clear orientation regarding their obligation to repay the loan, the current interest rates, and the available repayment options. This orientation will be provided to the student and/or parents by the Financial Aid Office. Parents and students will be informed that this kind of loan enters repayment after sixty (60) days of receiving the last disbursement for the academic year.

For additional information regarding the aids available at our Institution, please visit our Financial Aid Office located in any of our branch campuses.

### 5.3.2 **Veterans and Other Beneficiaries from Federal Programs**

Veteran students or beneficiaries of Veteran Administration Programs will receive benefits if they complete their study programs at the regular time stipulated in the catalog. In case they exceed, they lose eligibility for these benefits under Title 38. However, they can be eligible for financial aid under Title IV (Pell Grants and others) if they meet the corresponding requirements.

### 5.3.3 **Housing and Transportation**

MTC/MTI does not provide students housing or transportation services. Nevertheless, the Institution's facilities are located in easy-access area for both services.

## 5.4 **FINANCE OFFICE (COLLECTIONS)**

The main purpose of the Finance Office is to collect the money billed to students for enrollments, fees and other related charges not covered by the financial aids opportunities recognized and accepted by the Institution as describe under Section 5.3 of this Catalog. MTC/MTI accepts the following payment methods:

- Cash
- Money Orders
- Popular Bank of PR Payment Booklet (only in Puerto Rico)
- ATH (only in Puerto Rico)
- VISA
- Master Card
- Debit Card

Other payment methods applicable only to Puerto Rico are:

- Vocational Rehabilitation Program
- WIA Program
- Aid for Vocational Rehabilitation Veterans
- Aid for Tuition Assistance Military

During the enrollment process, the student fills out a payment plan in which they pledge to pay, in three (3) installments, the balance not covered by financial aids each term. The dates when these payments shall be made are stipulated in the payment plan. These dates have been chosen in such a way that the student can meet his/her financial obligation one month before the end of the academic term. This is done so that the student has no debt at the time the next enrollment is processed.

The office sends out letters on a monthly basis regarding the balances owed by each student in order to remind them of their balances and of their payments' expiration dates. Any active or inactive student, including re-entry and/or participating of the graduation and who applies for services at the Institution, must keep their account current and cannot have any balance pending before we can proceed to deliver any request for documents.

**Costs of Programs Offered:**

Programs offered	Credits	Length	Fees	Uniform	Maintenance Fee	Technology Fee	Terms	Total Program Cost
Associate Degree in Automotive Mechanics Technology	90	24	\$90.00	\$150.00	\$360.00	\$360.00	8	\$21,750.00
Associate Degree in Technology in Electrical Engineering	90	24	\$90.00	\$150.00	\$360.00	\$360.00	8	\$21,750.00
Associate Degree in Technology in Mechanical Engineering	90	24	\$90.00	\$150.00	\$360.00	\$360.00	8	\$21,750.00
Associate Degree in Industrial Electromechanics	90	24	\$90.00	\$150.00	\$360.00	\$360.00	8	\$21,750.00
Associate Degree in Biomedical Equipment Repair	90	24	\$90.00	\$150.00	\$360.00	\$360.00	8	\$21,750.00
Advanced Automotive Technology	60	15	\$90.00	\$150.00	\$225.00	\$225.00	5	\$14,370.00
Diesel Technology and Advanced Systems	60	15	\$90.00	\$150.00	\$225.00	\$225.00	5	\$14,370.00
Technology in Industrial Electricity with PLC and Renewable Energy	60	15	\$90.00	\$150.00	\$225.00	\$225.00	5	\$14,370.00
Technology in Refrigeration and Air Conditioning	60	15	\$90.00	\$150.00	\$225.00	\$225.00	5	\$14,370.00
Technology in Marine Mechanics with Electronic Systems	60	15	\$90.00	\$150.00	\$225.00	\$225.00	5	\$14,370.00
Technology in Collision and Auto Body Repair	60	15	\$90.00	\$150.00	\$225.00	\$225.00	5	\$14,370.00
Technology in Advanced Automatic Transmissions	48	12	\$90.00	\$150.00	\$180.00	\$180.00	4	\$11,544.00
Technology in Racing Mechanics*	48	12	\$90.00	\$150.00	\$180.00	\$180.00	4	\$ 11,688.00
Technology in Industrial Welding**	48	12	\$90.00	\$150.00	\$180.00	\$180.00	4	\$12,120.00
Motorcycle Repair and Maintenance	48	12	\$90.00	\$150.00	\$180.00	\$180.00	4	\$ 11,544.00
Tool and Die Maker Technician	36	9	\$90.00	\$150.00	\$135.00	\$135.00	3	\$8,718.00

**Associate Degree Programs : \$231.00 per credit**  
**Technical Programs : \$228.00 per credit**  
**Technology in Racing Mechanics: \$231.00 per credit \***  
**Technology in Industrial Welding:\$240.00 per credit \*\***

**Costs of programs for Mech-Tech Institute of Orlando, Florida:**

Programs Offered	Credits	Uniforms	Fees	Duration (months)	Tuition Cost
Automotive Mechanics	48	\$150.00	\$90.00	12	\$18,720.00
Technology in Racing Mechanics	48	\$150.00	\$90.00	12	\$18,720.00
Technology in Welding Mechanics	48	\$150.00	\$90.00	12	\$18,720.00
Technology in Diesel Mechanics	48	\$150.00	\$90.00	12	\$18,720.00

**5.4.1 Policy regarding changes in Enrollment Costs, Records and Fees required by Students**

It is the Institution's policy that if there is an increase in credit costs, it will only affect newly enrolled or those who request a re-entry.

If there are any changes in the registry costs or in the fees required from students, a notification of such changes will be sent before the next enrollment period.

**5.4.1.1 Fees for Technical Programs**

Admission Fee (Non-Refundable)	\$ 40.00
Enrollment Fee	\$ 50.00
Uniform	\$150.00
Cost Per Credit	\$228.00*
Administrative Expenses due to Withdrawal	\$100.00
Readmission	\$ 25.00
I.D. Card	\$ 5.00
Official Transcript	\$ 2.00
Certifications	\$ 1.00
Student Insurance	\$ 10.00
Revision of Grades	\$ 10.00
Graduation Fee	\$ 75.00
Maintenance and Improvement	\$ 45.00
Technology	\$ 45.00

\* Cost per credit for Racing Mechanics is \$231.00

\* Cost per credit for Industrial Welding is \$240.00

**5.4.1.2 Fees for Associate Degree Programs**

Admission Fee (Non-Refundable)	\$ 40.00
Enrollment Fee	\$ 50.00
Uniform	\$150.00
Cost Per Credit	\$231.00
Administrative Expenses due to Withdrawal	\$100.00
Readmission	\$ 25.00
I.D. Card	\$ 5.00
Official Transcript	\$ 2.00
Certifications	\$ 1.00
Student Insurance	\$ 10.00
Graduation Fee	\$ 75.00
Revision of Grades	\$ 10.00
Maintenance and Improvement	\$ 45.00
Technology	\$ 45.00

The Maintenance and Improvement Fee and the Technology Fee will apply to each term of study.

**5.4.1.3 Fees for Mech-Tech Institute of Orlando, Florida**

Admission Fee (Non-Refundable)	\$ 40.00
Uniform	\$150.00
Enrollment Cost	\$ 50.00
Cost per Credit	\$385.00
Withdrawal administrative expenses	\$100.00
Readmission	\$ 25.00
I.D. Card	\$ 5.00
Official Transcript	\$ 2.00
Certifications	\$ 1.00
Student Insurance	\$ 10.00
Revision of Grades	\$ 10.00
Graduation Fee	\$ 75.00

**5.4.2 Books and Materials**

The Institution does not provide books or materials to students. Students will be responsible for acquiring textbooks and materials. The estimated cost of books and materials can fluctuate between \$200 and \$400, depending of the program of study and the prevailing market cost.

**5.4.3 Cancellation and Refund Policy**

The Institution maintains a Cancellation and Refund Policy for Puerto Rico and one for Florida. The Institution's Cancellation and Refund Policy for Puerto Rico is based on that established by the accrediting agency, as follows:

1. Rejection of Applicant: When the Institution rejects an applicant before starting classes, all monies will be refunded including the admission fee. For international applicants to whom their visa request is rejected, all monies paid will be fully refunded to the applicant with the exception of the \$40.00 admission fee.
2. Program Cancellation: If the Institution cancels the program of study, all monies paid by the student will be fully refunded.
3. Cancellation Prior to the Start of Class or No Show: If the applicant decides to cancel his/her admission before the first day of classes or never attends class (no-show) during the first week of class, their admission will be cancelled and the debt with the Institution will be cancelled, and he/she will only be responsible for the payment of the admission fee. For international students, an institution may retain up to a maximum of \$500.00 for any non-refundable charges. Any additional monies paid will be refunded within 45 days from the first day of class or the day of the cancellation, whichever is earlier.
4. All students must settle their account balance before starting the next enrollment period.
5. If for any reason, the institution ceases operations, monies paid in excess by students or their grantor according to the proration up until the date in which the institution ceased operations, will be refunded except for the admissions fee.
6. Students that withdraw or are withdrawn will be responsible for paying the balance due after the withdrawal calculation. Students will be notified of the balance, if any, no later than 15 days from the date of withdrawal; the balance due will be a prorated calculation plus a \$100.00 administrative fee for the withdrawal.
7. Refund Policy for Withdrawals or Terminations:
  - a. Enrolled students that withdraw or are terminated after the first week of class, for the purpose of Refund Policy, the scheduled credits will be calculated until the last day of attendance (LDA); plus, an administrative withdrawal fee of \$100.00.

- b. If during the late enrollment process, the student is marked by an instructor(s) as “no show” when the student did not attend one of his/her classes, even though he/she attended other classes, the Registrar’s Office will begin a partial cancellation process of the enrollment, and the Finance Office will then proceed to make the required adjustment in the total enrollment cost for that term. The grant payments will be adjusted per the student’s final academic load for that term.

### Policy for Unearned Tuition Due to Withdrawal

The institution will use our accrediting agency’s (ACCET) policy to determine the amount of unearned tuition due to withdrawal:

- ✓ The refund calculation will be based on the student’s last day of attendance (LDA).
- ✓ During the first (1<sup>st</sup>) week of class, tuition charges will not exceed 10 percent (10%) of the stated tuition up to a maximum of \$1,000.00. The institution will consider a partial week as a whole when determining the number of weeks attended or completed by the student.
- ✓ After the first week of class, the financial obligation of the term of study will be subjected to a prorated calculation from the first week until the fifty percent (50%) of the training period, plus an administrative withdrawal fee of \$100.00 (see example).
- ✓ After fifty percent (50%) of the period of financial obligation is completed, the institution may retain the full tuition for that period.

All refunds for concept of credit towards the student will be paid as follows:

- If the credit is created for Title IV (Pell Grant, Direct Loan, FSEOG) payments, a check will be issued under the student’s name within 14 calendar days starting from the date of determination.
- If the credit is created by other aids, sources or cash payments, a check will be issued to the corresponding source or the student’s name within 30 calendar days starting from the date of determination.
- The student will have 30 additional business days to claim the check in the Collections (Finance) Office. If the student does not claim the check, it will be sent to the student by regular mail to the address on record.

### Calculation formula example for Mech-Tech College, LLC for a technical program:

Tuition for the Period	=	<b>\$2,826.00</b>
Number of Weeks Student Attended	=	$\frac{5}{12} = 41.7\%$
Number of Weeks Financially Obligated	=	12
Pro rata Portion Completed	=	41.7%
41.7% of \$2,826.00	=	\$1,178.44
Unearned Tuition due to Withdrawal	=	\$1,647.56
Administrative Fee	=	\$ 100.00
Owed to the Institution including Administrative Fee	=	\$1,278.44

### Calculation formula example for Mech-Tech College, LLC (Associate Degree programs):

Tuition for the Period	=	<b>\$2,862.00</b>
Number of Weeks Student Attended	=	$\frac{5}{12} = 41.7\%$
Number of Weeks Financially Obligated	=	12
Pro rata Portion Completed	=	41.7%
41.7% of \$2,862.00	=	\$ 1,193.45
Unearned Tuition due to Withdrawal	=	\$ 1,668.55
Administrative Fee	=	\$ 100.00
Owed to the Institution including Administrative Fee	=	\$ 1,293.45

**Return of Title IV Funds Policy**

All Institutions participating in Title IV programs are required to determine the earned and unearned portions of Title IV aid as of the date the student ceased attendance based on the amount of time the student was in attendance.

CFR 668.22 specifies how Mech Tech College (Mech-Tech) must determine the amount of Title IV program funds that a student earns if a withdrawal is processed. Title IV programs that are covered by this law are: Federal Pell Grants, TEACH Grants, Subsidized and Unsubsidized Direct Loans, PLUS Direct Loans, Federal Supplemental Educational Opportunity Grants (FSEOGs), Iraq and Afghanistan Service Grant and TEACH Grant.

The federal policy for “Return of Title IV” requires that if a recipient of Title IV assistance withdraws or is withdrawn from school during a payment period or period of enrollment in which the recipient began attendance, the school must calculate the amount of Title IV assistance the student did not earn and those funds must be returned.

The amount of Title IV assistance that a student has earned is determined on a pro rata basis. For example, if a student completed 30% of the payment period or period of enrollment, the financial aid earned is 30% of what had originally been scheduled. Once more than 60% of the payment period or period of enrollment has been completed, a student will earn all the financial aid that was scheduled to receive for that period.

Below is an example of the ratio used to calculate earned Title IV program assistance:

$$\frac{\text{Number of calendar days completed from start date of the payment period/period of enrollment to the last date of attendance}}{\text{Earned) Number of calendar days in payment period/period of enrollment}} = (\text{Title IV Funds})$$

If a student did not receive all of the funds that were earned, the student may be eligible for a Post-withdrawal disbursement. If the Post-withdrawal disbursement includes loan funds, the institution will seek permission from the student, parent or appropriate party before proceeding with the disbursement. You may choose to decline some or all of the loan funds so that you don't incur additional debt. The Institution may automatically use all or a portion of your Post- withdrawal disbursement of grant funds for tuition, fees, and room and board charges if applicable according to the enrollment agreement. The institution will request the student's permission to use the Post-withdrawal grant disbursement for all other school charges. If permission for this is not granted, the student will be offered the funds. However, it may be in the student's best interest to allow Mech-Tech to keep the funds to reduce your debt at the school.

There are some Title IV funds that if the student was scheduled to receive, but withdraws or is withdrawn, cannot be disbursed. For example, if a first-time, first year undergraduate student and has not completed the first 30 days of the program before withdrawing or being withdrawn, the student will not receive any Direct Loan funds that would have been eligible to receive had enrollment remained past the 30th day.

If the student receives (or the school or parent receive on the student's behalf) excess Title IV program funds that must be returned, your school must return a portion of the excess equal to the lesser of:

1. institutional charges multiplied by the unearned percentage of the federal funds, or
2. the entire amount of excess federal funds.

The return of Title IV federal funds to the federal government is done within 45 days from the date in which the withdrawal is determined.

Unearned Federal funds are returned in the following order, as applicable: Unsubsidized Direct Loan, Subsidized Direct Loan, PLUS Direct Loan, Pell Grant, Iraq and Afghanistan Service Grant FSEOG, TEACH Grant.

Any loan funds that must be returned by the student (or a parent for a PLUS Loan) must be repaid in accordance



with the terms of the main promissory note, therefore scheduled payments to the holder of the loan over a period of time.

Unearned grant funds, in any amount, that must be returned is called an overpayment. The maximum amount of a grant overpayment that a student must repay is half of the grant funds that were received or were scheduled to be received. A student does not have to repay a grant overpayment if the original amount of the overpayment is \$50.00 or less. The student must make arrangements with the school or the Department of Education to return the unearned grant funds.

The requirements for Title IV program funds when a student withdraws are separate from Mech-Tech's refund policy, therefore the student may still owe money to Mech-Tech for unpaid institutional charges. Mech-Tech may also charge the student for any Title IV program funds that were required to be returned. Mech-Tech's withdrawal and refund policy is explained in the Student Consumer Information catalog or discussed with a Financial Aid Counselor.

If further questions about Title IV program funds, the student can call the Financial Aid Officers at the Caguas Main Campus who can be reached at (787) 744-1060 and (787) 743-0484. At the Mayagüez Branch, they can be reached at (787) 834-5225. At the Bayamón Branch, (787) 995-2410 or (787) 995-2405. At the Vega Baja Branch, (787) 807-0711 or (787) 807-0575, Ponce Branch, (787) 709-4442, and the Orlando, Florida Campus, Mech-Tech Institute at 1-407- 888-1111.

**The institution's Cancellation and Refund Policy for its Orlando, Florida branch campus is based on Florida's Fair Consumer Practices (Rule 6E-1.0032) and the requirements of ACCET:**

1. Rejection of an Applicant: When the Institution rejects a student before starting classes, or if a prospective international student has his/her visa application rejected, all monies paid will be fully refunded to the applicant.
2. Program Cancellation: If an institution cancels a program of study, the institution refunds all monies paid by the student.
3. Cancellation Prior to the Start of Class or No Show: If the student decides to cancel his/her admission before the first day or three working days after start of classes or never attends class (no-show), his/her enrollment will be canceled and all monies paid will be fully refunded, except the \$40.00 admission fee.
4. All students must settle their account balance before starting the next enrollment period.
5. If for any reason the institution ceases operations, the money that the student has paid in excess will be refunded prorated up until the date in which the institution ceased operations, except for the admission fee.
6. If a student requests and/or processes a withdrawal or is administratively withdrawn (terminated), the student will be responsible for paying the balance reflected after the withdrawal calculation. Students will be notified of the balance, if any, no later than fifteen (15) days from the date in which the withdrawal is processed; the balance due will be a prorated calculation plus a \$100.00 administrative fee for the withdrawal.
7. Refund Policy for Withdrawals and Terminations:
  - a. For enrolled students that withdraw or are terminated after the first week of class, the scheduled credits will be calculated until the Last Day of Attendance (LDA); plus a charge of an administrative fee of \$100.00.
  - b. If during the late enrollment process, the student is a "no show" in one of his/her classes, even though he/she attended other classes, the Registrar's Office will begin a partial cancellation process of the enrollment, and the Finance Office will then proceed to make the corresponding adjustment in the total enrollment cost for that term. All charges and grant payments will be adjusted according to the student's final academic load for the term.

### Policy for Unearned Tuition Due to Withdrawal or Termination

The institution will combine Florida State's Rule 6E-1.0032 and ACCET's Refund Policy to determine the amount of unearned tuition due to withdrawal:

- ✓ Students are financially obligated and responsible based on the enrollment period. For this purpose, the period of financial obligation is each enrollment term (quarter).
- ✓ During the first (1<sup>st</sup>) week of class, students have a drop/add period. If the student withdraws before the end of the first week, during the drop/add period, the student will be refunded all tuition and fees, except the \$40.00 admission fee.
- ✓ After the first week and through fifty percent (50%) of the period of obligation (the term), the tuition charges will not exceed a pro-rata of the tuition portion for the periods completed, plus a withdrawal fee of \$100.00 (see example).
- ✓ After fifty percent (50%) of the period of financial obligation is completed by the student, the institution may retain the full tuition for that period.

All refunds due to the student will be paid as follows:

- If the credit balance is originated from Title IV funds (Pell Grant, FSEOG), a check will be issued under the student's name within 14 calendar days from the date of determination.
- If the credit balance is from other aids, other sources, or from cash payments, a check will be issued to the corresponding source or the student's name within 30 business days from the date of determination.
- The student will have 30 additional business days to claim the check in the Collections Office (Finance Office). If the student does not claim the check, it will be mailed to the student's address in record.

### Calculation formula example for Mech-Tech Institute in Orlando, FL:

Tuition for the Period [scheduled credits until LDA]	=	<b>\$4,620.00</b>
Number of Weeks Student Attended	=	<u>5</u> = 41.7%
Number of Weeks Financially Obligated	=	12
Pro rata Portion Completed	=	41.7%
41.7%                      of \$4,620.00	=	\$1,926.54
Unearned Tuition due to Withdrawal	=	\$2,693.46
Administrative Fee	=	\$ 100.00
Owed to the Institution including		
Administrative Fee	=	\$2,026.54

For Florida students, all refunds will be made within 30 days from the date of determination.

### Return of Title IV Funds Policy

All Institutions participating in Title IV programs are required to determine the earned and unearned portions of Title IV aid as of the date the student ceased attendance based on the amount of time the student was in attendance.

CFR 668.22 specifies how Mech Tech College (Mech-Tech) must determine the amount of Title IV program funds that a student earns if a withdrawal is processed. Title IV programs that are covered by this law are: Federal Pell Grants, TEACH Grants, Subsidized and Unsubsidized Direct Loans, PLUS Direct Loans, Federal Supplemental Educational Opportunity Grants (FSEOGs), Iraq and Afghanistan Service Grant and TEACH Grant.

The federal policy for “Return of Title IV” requires that if a recipient of Title IV assistance withdraws or is withdrawn from school during a payment period or period of enrollment in which the recipient began attendance, the school must calculate the amount of Title IV assistance the student did not earn and those funds must be returned.

The amount of Title IV assistance that a student has earned is determined on a pro rata basis. For example, if a student completed 30% of the payment period or period of enrollment, the financial aid earned is 30% of what had originally been scheduled. Once more than 60% of the payment period or period of enrollment has been completed, a student will earn all the financial aid that was scheduled to receive for that period.

Below is an example of the ratio used to calculate earned Title IV program assistance:

$$\frac{\text{Number of calendar days completed from start date of the payment period/period of enrollment to the last date of attendance}}{\text{Number of calendar days in payment period/period of enrollment}} = (\text{Title IV Funds Earned})$$

If a student did not receive all of the funds that were earned, the student may be eligible for a Post-withdrawal disbursement. If the Post-withdrawal disbursement includes loan funds, the institution will seek permission from the student, parent or appropriate party before proceeding with the disbursement. You may choose to decline some or all of the loan funds so that you don't incur additional debt. The Institution may automatically use all or a portion of your Post- withdrawal disbursement of grant funds for tuition, fees, and room and board charges if applicable according to the enrollment agreement. The institution will request the student's permission to use the Post-withdrawal grant disbursement for all other school charges. If permission for this is not granted, the student will be offered the funds. However, it may be in the student's best interest to allow Mech-Tech to keep the funds to reduce your debt at the school.

There are some Title IV funds that if the student was scheduled to receive, but withdraws or is withdrawn, cannot be disbursed. For example, if a first-time, first year undergraduate student and has not completed the first 30 days of the program before withdrawing or being withdrawn, the student will not receive any Direct Loan funds that would have been eligible to receive had enrollment remained past the 30th day.

If the student receives (or the school or parent receive on the student's behalf) excess Title IV program funds that must be returned, your school must return a portion of the excess equal to the lesser of:

1. institutional charges multiplied by the unearned percentage of the federal funds, or
2. the entire amount of excess federal funds.

The return of Title IV federal funds to the federal government is done within 45 days from the date in which the withdrawal is determined.

Unearned federal funds are returned in the following order, as applicable: Unsubsidized Direct Loan, Subsidized Direct Loan, PLUS Direct Loan, Pell Grant, Iraq and Afghanistan Service Grant FSEOG, TEACH Grant.

Any loan funds that must be returned by the student (or a parent for a PLUS Loan) must be repaid in accordance with the terms of the main promissory note, therefore scheduled payments to the holder of the loan over a period of time.

Unearned grant funds, in any amount, that must be returned is called an overpayment. The maximum amount of a grant overpayment that a student must repay is half of the grant funds that were received or were scheduled to be received. A student does not have to repay a grant overpayment if the original amount of the overpayment is \$50.00

or less. The student must make arrangements with the school or the Department of Education to return the unearned grant funds.

The requirements for Title IV program funds when a student withdraws are separate from Mech-Tech's refund policy, therefore the student may still owe money to Mech-Tech for unpaid institutional charges. Mech-Tech may also charge the student for any Title IV program funds that were required to be returned. Mech-Tech's withdrawal and refund policy is explained in the Student Consumer Information catalog or discussed with a Financial Aid Counselor.

If you have further questions about Title IV program funds, you can call the Financial Aid Officer at the Orlando, Florida branch campus, Mrs. Jessica López at 407-888-1111.

#### **5.4.4 Debts Pending Payment**

Each student will be issued a receipt for each payment transaction he/she makes. The Institution will regularly send collection letters to students who owe money for services received; when the normal procedures do not bring results, the accounts will be referred to a collections agency.

#### **5.4.5 Payment Plan**

The total cost of studies and fees are to be paid in their entirety during enrollment and before the first day of classes. Students, who are unable to meet this requirement, can participate in the Institution's deferred payment plan. This is designed for students who can only make payment by means of this plan and for those who are awaiting an answer and receipt of aid packages provided by federal, state or local agencies. These students will not be officially enrolled until they have signed the Payment Plan together with the Study Contract. It is each student's responsibility to stay up-to-date with his/her monthly payment plan.

### **5.5 STUDENT COUNSELING SERVICES**

The Student's Counseling Office provides services only in its Puerto Rico branch campuses. It offers professional help regarding student problems and needs in terms of their academic and personal phase. It offers guidance in the areas of values, attitudes, interests, study habits, and personal and family problems. In addition, it offers guidance on how to obtain a high-school diploma.

#### **5.5.1 Campus Life**

The Institution offers the ideal environment for students who wish to forge their careers. The spacious classrooms and laboratories allow you to develop to the utmost as a technician in the program you choose. Due to our excellent relationship with private enterprises, we are pioneers in the high technology that the job market needs. With greater knowledge comes a better chance for you to join the employment market.

#### **5.5.2 Drug Counseling Program**

This program is only offered in the Puerto Rico branch campuses. The Institution maintains an ongoing counseling program to fight off drug abuse. The Counseling Office works together with the Administration for Mental Health and Drug Addiction (ASSMCA) and its prevention programs by offering workshops on drug use and abuse. This Institution operates under the concept of a "Drug-Free Institution".

## 5.6 CAREER SERVICES OFFICE (PLACEMENT)

The Career Services Office coordinates practice centers with various government entities, industry and commerce where students can do their practice as required in their study program. It offers guidance to graduation candidates regarding job opportunities and interview techniques. Services offered to graduates include: referral for possible jobs and follow-up regarding their performance at work places. At MTI, the Career Services and job placement assistance is offered in Spanish and English. Completing a program in a language other than English, may reduce employability where English is required.

The office provides students orientation on how to obtain their license to work in their professions, if applicable. The Institution does not guarantee employment to students, prospective students or graduates, but it has always maintained a job placement average of 70% or more.

## 5.7 USE OF THE TOOL ROOM

The Tool Room is destined to offer loans of the tools and equipment necessary for the use of students and instructors so that they can perform their laboratories. Instructors are required to request this service in writing, and the request will be made with five (5) days of anticipation and the request must be in accordance to the course being given. The equipment and/or tools requested must be handed back to the Tool Room on the same day that the service was provided. In case that these are damaged and/or lost, the instructor must be responsible for paying the equivalent price in the market or will have to substitute the equipment and/or tool for one of the same or better quality.

Students are required to provide the identification card (ID) provided by the Institution when requesting this service. The ID will be returned when the student returns the tools and/or equipment lent. New students, who do not have their ID, can show their class schedule at least during the first two (2) weeks of class.

## 6.0 PROGRAMS OF STUDY

The Institution recommends that you follow the curricular sequence that is presented in each program's curricular system. It is required to follow the pre-requisites in the order established.

## 6.1 COURSE CODING SYSTEM

The coding system used by the Institution for its courses is composed of numbers and letters. The code has undergone several changes, resulting from the need for new programs and revised curricula. A 7-digit code, which identifies the program, or areas to which the course belongs identifies each course. The codes are identified as follows:

- ✓ **The letters identify the classes, the numbers identify the term the class falls in, and the last letter identifies whether it is a day or night class.**
- ✓ **Technical Programs:**
  - T = Technical Course
  - C = Complementary Courses
  - A = General Education Courses
  - Four letters = Identify the Course
  - # = Which term the class is in
  - D = Day
  - E = Evening
- ✓ **Associate Degree Programs:**
  - G = Associate Degree
  - T = Technical Courses

- C = Complementary Courses
- A = General Education Courses
- Four letters = Identify the Course
- # = Which term the class is in
- D = Day
- E = Evening

## 6.2 DESCRIPTION OF ASSOCIATE DEGREE PROGRAMS

The Associate Degree programs are offered only in the Puerto Rico branch campuses of Caguas and Vega Baja. The academic programs leading to an Associate Degree are offered 51-using the credit hour as a basis. The total of credits in each of the programs is 90 credits, of which 30 pertain to general education courses, 42 to the major, 12 related courses and 6 for practice in the Industry.

### 6.2.1 Each program contains the following components:

- General Education Component** – This component contributes to the student’s intellectual and humanistic development. It offers balance in the curriculum and includes subjects such as natural sciences, humanities and social and administrative sciences. In addition, communication skills and a sense of personal and social responsibility are addressed.
- Student’s Major Component** – This component includes the courses that technically enable the student to effectively practice the profession for which the program is designed.
- Related Course Component** – This component of courses reinforces the courses in the student’s specialty and expands the scope of the student’s technical skills. In addition, these courses supplement the knowledge necessary to effectively become a part of the professional and/or entrepreneurial practice.

**6.3 INSTITUTIONALLY ACCREDITED PROGRAMS OF STUDY:**

<b>PROGRAMS</b>	<b>CREDITS</b>	<b>CLOCK HOURS</b>	<b>LENGTH MONTHS</b>
Associate Degree in Technology in Electrical Engineering	90	1,800	24
Associate Degree in Technology in Mechanical Engineering	90	1,800	24
Associate Degree in Automotive Mechanics Technology	90	1,800	24
Associate Degree in Industrial Electromechanical Technology	90	1,800	24
Associate Degree in Biomedical Equipment Repair	90	1,800	24
Advanced Automotive Technology	60	1,200	15
Diesel Technology and Advanced Systems	60	1,200	15
Technology in Advanced Automatic Transmissions	48	520	12
Technology in Industrial Electricity with PLC and Renewable Energy	60	1,200	15
Technology in Refrigeration & Air Conditioning	60	1,200	15
Technology in Industrial Welding	48	960	12
Technology in Marine Mechanics with Electronic Systems	60	1,200	15
Technology in Collision and Auto Body Repair	60	1,200	15
Motorcycle Maintenance and Repair	48	960	12
Technology in Racing Mechanics (not offered in Mayaguez)	48	960	12
Tool and Die Maker Technician (not offered in Ponce)	36	720	9

**Programs of study for Mech-Tech Institute of Orlando, Florida:**

**\*These are offered in English language or bilingual program (Spanish/English)**

<b>PROGRAMS</b>	<b>CREDITS</b>	<b>CLOCK HOURS</b>	<b>LENGTH MONTHS</b>
Automotive Mechanics	48	960	12
Technology in Racing Mechanics	48	960	12
Technology in Industrial Welding	48	960	12
Technology in Diesel Mechanics	48	960	12



**PROGRAMS OF STUDY  
DEGREE LEVEL**

**CAGUAS AND VEGA BAJA BRANCHES  
(Available only at these two sites)**



**ASSOCIATE DEGREE IN TECHNOLOGY IN ELECTRICAL ENGINEERING  
90 CREDITS (24 months)**

This program is designed to offer the student the theoretical and practical knowledge required by the modern electricity industry to successfully perform in a changing environment. The program also provides an integrated technical and human formation with emphasis in the development of business skills and leadership.

The program promotes skills development for decision-making and to anticipate and attend typical situations in the working occupational environment. The student will master techniques to make electrical installations taking into consideration the occupational safety rules, codes, laws, regulations, and specifications of Puerto Rico. The graduate will be capable of doing electrical jobs in residences and buildings by fixing electrical engines, installing power plants, and designing and installing electrical equipment in industries. The graduate will be prepared to take the exam offered by the Examining Board of Expert Electricians of Puerto Rico.

The Institution offers reviews for the different programs for which licensure is required; this is carried out at the end of the program. During the program of study, the students are prepared with the necessary skills and knowledge to take the test.

The only review that is offered before completing the program of study is the Electrician Helper’s, because the Helper’s Examination can be taken before completing it.

This program also prepares students to work in positions, such as: Electrician, Electrician Assistant, Electrical Installer, Designer of Electrical Equipment, Maintenance of Electrical Motors, Welder, Instrumentalist, Programmer (PLC), Illumination Technician, Transformers Technician.

Licensing requirements : During or at the end of the program of study, students or graduates can take the Electrician Helper Examining Board’s test. After one year of working in the profession, the Government of Puerto Rico requires that they take the Board Exam for Electricity Expert.

**First Quarter.**

Code-Title	Course	Credits
AGEBI1D	Basic Spanish I – No. 101	3
AGMAG1D	General Mathematics	3
CGSEI1D	Industrial Safety	3
TGFEER1D	Fundamentals of Electricity with Renewable Energy and Laboratory	3
		<b>12 credits</b>

**Second Quarter**

Code-Title	Course	Credits
AGEBII2D	Basic Spanish II – No. 102	3
AGMAT2D	Technical Mathematics	3
CGCOM2D	Introduction to Computers	3
TGIEL2D	Residential Electrical Installations and Laboratory	3
		<b>12 credits</b>

**Third Quarter**

Code-Title	Course	Credits
AGIBI3D	Basic English I – No. 101	3
AGFIT3D	Technical Physics	3
TGDIT3D	Technical Drawings	3
TGSIL3D	Illumination Systems and Laboratory	3
		<b>12 credits</b>

**Fourth Quarter**

Code-Title	Course	Credits
AGIBII4D	Basic English II – No. 102	3
TGFEL4D	Electronics Fundamentals and Laboratory	3
TGMML4D	Maintenance of Electrical Motors and Laboratory	3
TGCEL4D	Circuits and Electrical Controls and Laboratory	3
		<b>12 credits</b>

**Fifth Quarter**

Code-Title	Course	Credits
TGPLC5D	Principles of Combinational Logic and Laboratory	3
TGRCE5D	National Electrical Code and Regulations	3
AGCHU5D	Human Conduct and Interpersonal Relations	3
TGIPL5D	Installation of Electrical Panels, Branch Circuits, Transfer Switches, and Laboratory	3
		<b>12 credits</b>

**Sixth Quarter**

Code-Title	Course	Credits
TGLPE6D	Reading of Schematic Drawings	3
TGINS6D	Instrumentation	3
TGLDL6D	Distribution Lines, Transformers, and Laboratory	3
AGHDI6D	Humanities I – No. 101	3
		<b>12 credits</b>

**Seventh Quarter**

Code-Title	Course	Credits
TGCLP7D	Programmable Logic Controllers (PLC)	3
CGSOB7D	Basic Welding and Laboratory	3
CGAGN7D	Business Ethics and Administration	3
AGHUII7D	Humanities II – No. 102	3
		<b>12 credits</b>

**OUTPUT ASSESSMENT****Eight Quarter**

Code-Title	Course	Credits
TPRIN8D	Practice in the industry	6
		<b>6 credits</b>

**Program Distribution in Hours-Credits**

Area	Hours	Credits
General Education	600	30
Major	900	42
Related Courses	240	12
Field Practice (Laboratory)	120	6
	1,800	90 credits

\*Program length – 24 months.

**Output Assessment:**

The Output Assessment is a valuation exam that will be taken by the students before entering their practice phase. This exam serves as a measuring tool for placing students in their practice phase and also as a guide for the institution to further evaluate the study program.

The student must pass the test with a grade of 70% or higher. If the student fails the exam, he/she will have as many opportunities as he/she requires of repeating it. The student will be provided re-teaching in the areas of deficiency presented in the exam.

**ASSOCIATE DEGREE IN TECHNOLOGY IN MECHANICAL ENGINEERING  
90 CREDITS (24 months)**

This program is designed to provide students with theoretical knowledge and technical skills required in the tool and die making industry as well as the complementary practical training. The program also provides an integrated technical and human formation with emphasis in the development of business skills and leadership.

The courses apply mathematical concepts in order to design, produce, offer maintenance operations, and solve problems related to products and procedures. The courses teach the operation and use of specialized equipment such as lathes, mills, grinders, hydraulic hacksaws, computerized equipment, and precise measuring instruments; among others, to repair, construct or reconstruct forms and dies.

The program is designed to develop in students the skills required to analyze specifications, inspect and approve finished products, and the application and construction of designs. The graduate will be able to perform as a Tool and Die Maker and occupy supervising and administrative positions in the industry.

This program also prepares students to work in positions, such as: Tool and Die Maker, General Mechanics, Welder, CNC Programmer, Workshop Supervisor, Parts Department Employee, Machinist, Draftsman.

**First Quarter**

Code-Title	Course	Credits
AGCHU1D	Interpersonal Relations	3
AGSCMI1D	Systems and Concepts for Shop Measurements I	3
TGDIT1D	Technical Drawing	3
TGITIM	Introduction to Technology in Mechanical Engineering	3
		<b>12 credits</b>

**Second Quarter**

Code-Title	Course	Credits
AGEBII2D	Basic Spanish II	3
AGSCMII2D	Systems and Concepts for Shop Measurements II	3
TGPMP2D	Metals and Plastics	3
CGCOM2D	Computer Principles	3
		<b>12 credits</b>

**Third Quarter**

Code-Title	Course	Credits
AGIBI3D	Basic English I	3
TGCAD3D	CAD - <i>SolidWorks</i> ®	3
TGBAL3D	Bench and Laboratory	3
AGFIT3D	Technical Physics	3
		<b>12 credits</b>

**Fourth Quarter**

Code-Title	Course	Credits
AGIBII4D	Basic English II	3
CGRIT4D	Writing of Technical Reports	3
TGTOML4D	Metal Lathe and Laboratory	4
CGSEGI4D	Industrial Safety	2
		<b>12 credits</b>

**Fifth Quarter**

Code-Title	Course	Credits
AGEBII5D	Basic Spanish II	3
TGMEC5D	Common Market (Currency Exchange)	2
TGFRE5D	Milling and Laboratory	4
TGFUE5D	Fundamentals of Electricity	3
		<b>12 credits</b>

**Sixth Quarter**

Code-Title	Course	Credits
TGFEL6D	Fundamentals of Electronics	3
TGFRAV6D	Advanced Fabrication Techniques	3
TGDTR6D	Dies Design and Construction and Laboratory	6
		<b>12 credits</b>

**Seventh Quarter**

Code-Title	Course	Credits
CGAGN7D	Business Ethics and Administration	3
TGSCL7D	CNC and Laboratory	3
TGHNE7D	Hydraulics and Pneumatics	3
CGSOB7D	Welding and Laboratory	3
		<b>12 credits</b>

**OUTPUT ASSESSMENT**

**Eight Quarter**

Code-Title	Course	Credits
TPRIN8D	Practice in the industry	6
		<b>6 credits</b>

**Program Distribution in Hours-Credits**

Area	Hours	Credits
General Education	480	24
Major	880	44
Related Courses	320	16
Field Practice (Laboratory)	120	6
	<b>1,800</b>	<b>90 credits</b>

\*Program length – 24 months.

**Output Assessment:**

The Output Assessment is a valuation exam that will be taken by the students before entering their practice phase. This exam serves as a measuring tool for placing students in their practice phase and also as a guide for the institution to further evaluate the study program.

The student must pass the test with a grade of 70% or higher. If the student fails the exam, he/she will have as many opportunities as he/she requires of repeating it. The student will be provided re-teaching in the areas of deficiency presented in the exam.

**ASSOCIATE DEGREE IN AUTOMOTIVE MECHANICS TECHNOLOGY**  
**90 CREDITS (24 months)**

This program is designed to offer the student the theoretical and practical knowledge required in the automotive industry to be able to successfully perform and comply with modern workshops demands. The program provides an integrated technical and human academic formation with emphasis in the development of business skills and leadership.

The program promotes the development of skills for decision-making and to anticipate and attend typical situations in the working occupational environment. The student will master technical concepts and skills for repairing and maintaining automobiles, tools usage and special technology in the automobile mechanics profession. The graduate will have complete domain in the use of sophisticated instruments to accurately diagnose faults in any types of computerized fuel injection systems. The graduate will be prepared to take the Automotive Technician exam offered by the State Examining Board of Puerto Rico.

Elements of self-employment are incorporated to stimulate the establishment of workshops offering automotive maintenance and repair services.

The Institution offers reviews for the different programs for which licensure is required; this is carried out at the end of the program. During the program of study, the students are prepared with the necessary skills and knowledge to take the Examining Board's test.

This program also prepares students to work in positions, such as: Automotive Technician, Automobile Air Conditioning Mechanic, make diagnosis, Welder, Motors Repairer, Transmissions Mechanics, Parts Department employee, Workshop Supervisor, Service Supervisor, own business.

Licensing requirements : The Puerto Rico Automotive Technicians and Automotive Mechanics Examining Board requires graduates from this program to take the Examining Board for Automotive Technician or Automotive Mechanic.

**First Quarter**

Code-Title	Course	Credits
AGEBI1D	Basic Spanish I – No. 101	3
AGMAG1D	General Mathematics	3
CGSEI1D	Industrial Safety	3
TGPMA1D	Principles of Automotive Mechanics	3
		<b>12 credits</b>

**Second Quarter**

Code-Title	Course	Credits
AGEBII2D	Basic Spanish II – No. 102	3
AGMAT2D	Technical Mathematics	3
TGMCL2D	Internal Combustion Engine and Laboratory	6
		<b>12 credits</b>

**Third Quarter**

Code-Title	Course	Credits
AGIBNI3D	Basic English I – No. 101	3
AGFIT3D	Technical Physics	3
TGSIL3D	Fuel Injection System and Laboratory	3
CGCOM3D	Introduction to Computers	3
		<b>12 credits</b>

**Fourth Quarter**

Code-Title	Course	Credits
AGIBII4D	Basic English II – No. 102	3
TGSEL4D	Electrical and Electronic System of the Automobile and Laboratory	3
TGSIL4D	Electronic Injection System and Laboratory	3
		<b>12 credits</b>

**Fifth Quarter**

Code-Title	Course	Credits
TGSAC5D	Air Conditioning System of the Automobile and Laboratory	3
TGSDL5D	Direction, Suspension, Brakes System and Laboratory	3
AGCHU5D	Human Conduct and Interpersonal Relations	3
TGIHI5D	Hydraulic Impulse	3
		<b>12 credits</b>

**Sixth Quarter**

Code-Title	Course	Credits
TGTFL6D	Power Transmission System and Differentials and Laboratory	3
CGSOB6D	Basic Welding and Laboratory	3
TGFMD6D	Principles and Function of Diesel Engines	3
AGHUI6D	Humanities I – No. 101	3
		<b>12 credits</b>

**Seventh Quarter**

Code-Title	Course	Credits
TGPAT7D	Advanced Practice in Automotive Technology	3
CGAGN7D	Business Ethics and Administration	3
AGHUII7D	Humanities II – No. 102	3
		<b>12 credits</b>

**OUTPUT ASSESSMENT****Eight Quarter**

Code-Title	Course	Credits
TPRIN8D	Practice in the industry	6
		<b>6 credits</b>

**Program Distribution in Hours-Credits**

Area	Hours	Credits
General Education	600	30
Major	900	42
Related Courses	240	12
Field Practice (Laboratory)	120	6
	1,800	90 credits

\*Program length – 24 months.

**Output Assessment:**

The Output Assessment is a valuation exam that will be taken by the students before entering their practice phase. This exam serves as a measuring tool for placing students in their practice phase and also as a guide for the institution to further evaluate the study program.

The student must pass the test with a grade of 70% or higher. If the student fails the exam, he/she will have as many opportunities as he/she requires of repeating it. The student will be provided re-teaching in the areas of deficiency presented in the exam.



**ASSOCIATE DEGREE IN BIOMEDICAL EQUIPMENT REPAIR  
90 CREDITS (24 months)**

This program has been designed to offer the student theoretical and practical knowledge required by the industry of health services and maintenance. The student will develop with success and will comply with current policies of diagnosis centers, healthcare facilities and modern hospitals. The program promotes an academic, technical and human formation with emphasis in the development of management and leadership skills.

The program promotes the development of skills for decision-making, to anticipate and attend on-the-job scenarios. The student will have domain of technical knowledge and necessary repair and maintenance skills of biomedical equipment, the use of tools, instruments and special technology in the profession of repairing and providing maintenance of specialized equipment. The student will have domain of sophisticated precision instruments to diagnose failures in computerized calibration equipment used in biomedical equipment and in all healthcare facilities.

Once this program has been completed, the student will be capable of diagnosing failures in medical equipment and will develop repair, calibration and measuring skills of precision biomedical instruments.

This program also prepares students to work in positions, such as: Biomedical Equipment Repair Technician, Diagnosis of specialized equipment, Preventive Maintenance of machinery and equipment, Instrumentation Technician.

Some employers may establish Immunization requirements, such as: Hepatitis B, Flu Shot, Chicken Pox, and Anti-Doping test

**First Quarter**

Code-Title	Course	Credits
AGEBI1D	Basic Spanish I – No. 101	3
AGMAG1D	General Mathematics	3
TGFUE1D	Fundamentals of Electricity	3
TGTBIOT1D	Introduction to Biomedical Technology and Medical Terminology	3
		<b>12</b>

**Second Quarter**

Code-Title	Course	Credits
AGEBII2D	Basic Spanish II – No. 102	3
AGMAT2D	Technical Mathematics	3
CGCOM2D	Introduction to Computers and Laboratory	3
AGFIT2D	Technical Physics	3
		<b>12</b>

**Third Quarter**

Code-Title	Course	Credits
AGIBI3D	Basic English I – No. 101	3
TGFDE3D	Fundamentals Electronics and Laboratory	3
TGDIT3D	Technical Drawings	3
TGFISIO3D	Applied Physiology for Biomedical Repair Technicians	3
		<b>12</b>

**Fourth Quarter**

Code-Title	Course	Credits
AGIBII4D	Basic English II – No. 102	3
TGCLDI4D	Digital Logic Circuits and Laboratory	3
TGEABIL4D	Advanced Biomedical Electronics and Laboratory	6
		<b>12</b>

**Fifth Quarter**

Code-Title	Course	Credits
TGLIPL5D	Reading and Interpretation of Schematic Drawings	3
TGIMEB15D	Instrumentation and Biomedical Measurements I	3
AGCHU5D	Human Conduct and Interpersonal Relations	3
TGCLSEC5D	Sequential Logic Circuits and Laboratory	3
		<b>12</b>

**Sixth Quarter**

Code-Title	Course	Credits
TGIMEB126D	Instrumentation and Biomedical Measurements II	3
TGQIN6D	Industrial Chemistry for Health Sciences : Hygiene and Safety	3
TGTING6D	Biomedical Engineering Techniques (Computers in Biomedical Equipment)	3
AGHUI6D	Humanities I – No. 101	3
		<b>12</b>

**Seventh Quarter**

Code-Title	Course	Credits
TGROBO7D	Robotics and Laboratory	2
TGCLP7D	Programmable Logic Controllers (PLC)	4
TGARIML7D	Application and Repair of Medical Instruments and Laboratory (Troubleshooting)	3
TGSEMBI7D	Seminar in Biomedical Applications	3
		<b>12</b>

**OUTPUT ASSESSMENT**

**Eight Quarter**

Code-Title	Course	Credits
TPRIN8D	Clinical Practice (Rotations)	6

**Program Distribution in Hours-Credits**

Area	Hours	Credits
General Education	600	30
Major	900	36
Related Courses	240	18
Field Practice (Laboratory)	120	6
	<b>1,800</b>	<b>90 credits</b>

\*Program length – 24 months.

**Output Assessment:**

The Output Assessment is a valuation exam that will be taken by the students before entering their practice phase. This exam serves as a measuring tool for placing students in their practice phase and also as a guide for the institution to further evaluate the study program.

The student must pass the test with a grade of 70% or higher. If the student fails the exam, he/she will have as many opportunities as he/she requires of repeating it. The student will be provided re-teaching in the areas of deficiency presented in the exam.

In the Associate Degree for Biomedical Equipment Repair Program, the Clinical Phase (Practice) is currently available during the daytime only. There are no evening practice centers available in Puerto Rico for this profession. The student must make proper arrangements to complete their practice during the day in the last term of studies.

**ASSOCIATE DEGREE IN  
INDUSTRIAL ELECTROMECHANICAL TECHNOLOGY  
90 CREDITS (24 months)**

This program has been designed to offer the student the theoretical and practical knowledge required by the electronics and modern mechanics industry so that he/she can develop with success and comply with the modern industry requirements. The program provides an academic, technical and human integral formation with emphasis in the development of management and leadership skills.

The program promotes skills development for decision making and to anticipate personal situations in the labor and occupational market. The student will have domain of technical knowledge and skills required in the repair and maintenance of equipment, in the use of tools, instruments and special technology in the profession of equipment and machinery maintenance and repair. The student will have domain of sophisticated precision equipment to diagnose failures in the computerized function of technological equipment in all types of industry.

The objective of the Associate Degree in Industrial Electromechanical Technology is the formation of highly capable professionals in the selection, installation, operation and maintenance of equipment and electrical and mechanical installations that are used in any industry, either manufacturing, assembly or service.

This program also prepares students to work in positions, such as: Industrial Mechanic, General Mechanic, Electrician Assistant, Preventive Maintenance of Machinery and Motors, Electrical Panels Installer, Instrumentation, Welder, Diagnosis of Air Systems, Programmer (PLC).

**First Quarter**

Code-Title	Course	Credits
AGEBI1D	Basic Spanish I – No. 101	3
AGMAG1D	General Mathematics	3
CGSEI1D	Industrial Safety	3
TGIEIN1D	Introduction to Industrial Electromechanics	3
		<b>12</b>

**Second Quarter**

Code-Title	Course	Credits
AGFIT2D	Technical Physics	3
AGMAT2D	Technical Mathematics	3
CGCOM2D	Introduction to Computers	3
AGEBII2D	Basic Spanish II – No. 102	3
		<b>12</b>

**Third Quarter**

Code-Title	Course	Credits
AGIBI3D	Basic English I – No. 101	3
TGFEER3D	Fundamentals of Electricity with Renewable Energy and Laboratory	3
TGDIT3D	Technical Drawings	3
TGMEGEN3D	General Mechanics (Machinery and Tools)	3
		<b>12</b>

**Fourth Quarter**

Code-Title	Course	Credits
AGIBII4D	Basic English II – No. 102	3
TGFEL4D	Fundamentals of Electronics and Laboratory	3
TGMML4D	Maintenance of Electrical Motors and Laboratory	3
TGCEL4D	Circuits and Electrical Controls and Laboratory	3
		<b>12</b>

**Fifth Quarter**

Code-Title	Course	Credits
TGPLC5D	Principles of Combinational Logic and Laboratory	3
TGHNE5D	Hydraulics, Pneumatics and Laboratory	3
AGCHU5D	Human Conduct and Interpersonal Relations	3
TGIPL5D	Installation of Electrical Panels, Branch Circuits, Transfer Switches and Laboratory	3
		<b>12</b>

**Sixth Quarter**

Code-Title	Course	Credits
TGLPE6D	Reading of Schematic Drawings	3
TGINS6D	Instrumentation	3
TGRACL6D	Refrigeration and Air Conditioning System and Laboratory	3
AGHUI6D	Humanities I – No. 101	3
		<b>12</b>

**Seventh Quarter**

Code-Title	Course	Credits
TGCLP7D	Programmable Logic Controllers (PLC)	3
CGSOB7D	Welding, Metallurgy and Laboratory	3
TGIROB7D	Robotics and Laboratory	3
AGHUII7D	Humanities II – No. 102	3
		<b>12</b>

**OUTPUT ASSESSMENT**

**Eight Quarter**

Code-Title	Course	Credits
TPRIN8D	Practice in the Industry	6
		<b>6</b>

**Program Distribution in Hours-Credits**

Area	Hours	Credits
General Education	600	30
Major	900	42
Related Courses	240	12
Field Practice (Laboratory)	120	6
	<b>1,800</b>	<b>90 credits</b>

\*Program length – 24 months.

**Output Assessment:**

The Output Assessment is a valuation exam that will be taken by the students before entering their practice phase. This exam serves as a measuring tool for placing students in their practice phase and also as a guide for the institution to further evaluate the study program.

The student must pass the test with a grade of 70% or higher. If the student fails the exam, he/she will have as many opportunities as he/she requires of repeating it. The student will be provided re-teaching in the areas of deficiency presented in the exam.



**TECHNICAL PROGRAMS OF STUDY  
APPLICABLE TO MAIN CAMPUS  
AND BRANCH CAMPUSES  
IN PUERTO RICO**

**ADVANCED AUTOMOTIVE TECHNOLOGY**  
**(1,200 CLOCK HOURS / 60 CREDIT HOURS)**  
**(15 months)**

**Program Description:**

This program has been designed to develop in the student the technical knowledge and necessary skills to repair and provide maintenance to all types of automobiles. Hydraulic lifters are used to examine the front-end of the vehicle, brakes systems and power transmissions. Special tools are also used to diagnose computerized systems, brakes and other components.

In this program the following areas are studied: lubrication and cooling systems, air conditioning systems, internal combustion engine, alignment, electrical system, safety systems including airbags, ABS systems, satellite navigational system and the latest technologies available from different manufacturers and Mech-Tech's training centers (Chrysler, Nissan/Kia, Pep Boys).

This program also prepares students to work in positions, such as: Automotive Technician, Automotive Mechanic, Parts Department Employee, Motorcycles Mechanic, Welder, Racing Team Technician, Service Advisor, Transmissions Technician, Electromechanical Technician, Alignment Technician, own business.

**Program Objective:**

The Advanced Automotive Technology Program has been designed to offer the student a complete training of advanced techniques in the Automotive Mechanics field. It also provides knowledge in managing diagnosis instruments of the automobile, engine repair, electrical system of the automobile, transmissions, alignment, air conditioning system and brakes system. The student will also learn the safety rules and first aid procedures required for this trade.

Upon completion of the Advanced Automotive Technology Program, the student will be prepared with the necessary knowledge and skills to take the Automotive Technician bar, obtain the corresponding license and work in this profession where his/her services are required. The student will also have the opportunity to establish his/her own business after acquiring the necessary experience.

The Institution offers reviews for the different programs for which licensure is required; this is carried out at the end of the program. During the program of study, the students are prepared with the necessary skills and knowledge to take the Examining Board's test.

Licensing requirements : The Puerto Rico Automotive Technicians and Automotive Mechanics Examining Board requires graduates from this program to take the Board Exam for Automotive Mechanic or Automotive Technician.

## ADVANCED AUTOMOTIVE TECHNOLOGY

### Program: Curricular Content

#### General Education Courses

<u>Code</u>	<u>Courses/Classes</u>	<u>Credits</u>
AINGL1D	Technical English	2
AMATE4D	Applied Mathematics	2
AREHU5D	Human Relations	<u>1</u>
		5

#### Concentration Courses

TELEL1D	Electricity and Electronics Fundamentals	3
TIMAU1D	Introduction to Automotive Mechanics	3
TMCIA1D	Internal Combustion Engine of the Automobile and Laboratory	3
TSINY12D	Injection System of the Automobile I and Laboratory	3
TREMO2D	Engine Repair and Laboratory	3
TTDAL2D	Front-End Steering and Wheel Alignment and Laboratory	3
TSINY23D	Injection System of the Automobile II and Laboratory	3
TSEEA13D	Electrical and Electronic System of the Automobile I and Laboratory	3
TFABS3D	Brakes and ABS (TCS) System of the Automobile and Laboratory	3
TATEC4D	Technological Advances in Automotive Mechanics (Industry – Training Centers)	3
TSACAL4D	Air Conditioning System of the Automobile and Laboratory	3
TSEEA24D	Electrical and Electronic System of the Automobile II and Laboratory	4
TSTFAL5D	Power Transmission System of the Automobile and Laboratory	4
TLEXO5D	Occupational Experience Laboratory	<u>6</u>
		47

#### Cursos Complementarios

CSEGU1D	Industrial Safety	1
CCOST5D	Costs y Estimates	1
CSOLDL2D	Welding and Laboratory	3
CICOM3D	Introduction to Computers	<u>3</u>
		8

#### Program Summary

<b>Total Credits</b>	<b>:</b>	<b>60</b>
<b>Total Hours</b>	<b>:</b>	<b>1,200</b>
<b>Program Length</b>	<b>:</b>	<b>15 Months</b>

**DIESEL TECHNOLOGY AND ADVANCED SYSTEMS**  
**(1,200 CLOCK HOURS / 60 CREDIT HOURS)**  
**(15 months)**

**Program Description:**

In this program the student will learn to repair and provide maintenance to vehicles and diesel equipment by using special tools, equipment and precision instruments. Failures in diesel engines are diagnosed; they are disassembled, examined, and defective parts are replaced. Other engine systems are studied, such as: injectors systems, hydraulic systems, combustion systems, brakes systems, and power transmissions systems.

This program also prepares students to work in positions, such as: Industrial Equipment Repair Technician, Welder, Racing Team Technician, Motorcycles Mechanic, Performance Engine Tuning, Service Advisor, Parts Department Employee.

**Program Objective:**

The Diesel Technology and Advanced Systems Program has been designed to offer the student a complete training of the most advanced techniques in the Diesel Mechanics field; it also provides diagnosis and repair of diesel engines. The student will have the capability of working with injection systems, brakes systems, hydraulic system, and transmission system, and will also learn the safety rules and first aid procedures required for this trade.

Upon completion of the program, the student will be prepared to take the Diesel Mechanic bar offered by the State Examining Board and will perform satisfactorily in this trade after taking the test and acquiring the corresponding license.

The Institution offers reviews for the different programs for which licensure is required; this is carried out at the end of the program. During the program of study, the students are prepared with the necessary skills and knowledge to take the Examining Board's test.

Licensing requirements : The Puerto Rico Automotive Technicians and Automotive Mechanics Examining Board requires graduates from this program to take the Board Exam for Automotive Mechanic or Automotive Technician.



**DIESEL TECHNOLOGY AND ADVANCED SYSTEMS****Program: Curricular Content****General Education Courses**

<b><u>Code</u></b>	<b><u>Courses / Classes</u></b>	<b><u>Credits</u></b>
AMATE1D	Applied Mathematics	2
AINGL5D	Technical English	2
AREHU2D	Human Relations	1
	5	

**Concentration Courses**

TIMDI1D	Introduction to Diesel Mechanics	3
TCID11D	Internal Diesel Combustion I and Laboratory	6
TCID22D	Internal Diesel Combustion II and Laboratory	5
TELDI2D	Diesel Cooling and Lubrication Systems and Laboratory	3
TSEDI3D	Diesel Electrical and Electronic Systems and Laboratory	3
TTFDI5D	Diesel Power Transmissions and Laboratory	4
TSRFD3D	Diesel Wheels and Brakes System and Laboratory	3
TSHIN4D	Diesel Hydraulic and Pneumatic Systems and Laboratory	3
TSIEDL4D	Diesel Injection System and Laboratory	6
TSACD3D	Diesel Air Conditioning System and Laboratory	3
TLEXO5D	Occupational Experience Laboratory	6
TFDEL2D	Electronics Fundamentals	2
		47

**Complementary Courses**

CSEGU4D	Industrial Safety	1
CCOST5D	Costs and Estimates	1
CSOLDL3D	Welding and Laboratory	3
CICOM2D	Introduction to Computers	3
		8

**Program Summary**

<b>Total Credit Hours</b>	<b>:</b>	<b>60</b>
<b>Program Length</b>	<b>:</b>	<b>15 Months</b>
<b>Total Clock Hours</b>	<b>:</b>	<b>1,200</b>

**TECHNOLOGY IN ADVANCED AUTOMATIC TRANSMISSIONS**  
**(960 CLOCK HOURS / 48 CREDIT HOURS)**  
**(12 months)**

**Program Description:**

In this program, the students learn to dismount, disassemble, repair, and make tests of manual and automatic transmissions using specialized tools required in the profession. They use lifting jacks, automobile lifters, and transmissions are dismounted and mounted from automobiles, trucks and buses. Bands, disks, seals, and valves are changed. Transmissions are installed and checked.

This program also prepares students to work in positions such as: transmissions mechanic, automotive mechanics, light mechanics, diagnosis, and parts department employee.

**Program Objective:**

At the end of this program, the graduate will be qualified to take and approve the examination for Automotive Mechanic and to satisfactorily perform as transmissions mechanic; after obtaining the corresponding license.

The Institution offers reviews for the different programs for which licensure is required; this is carried out at the end of the program. During the program of study, the students are prepared with the necessary skills and knowledge to take the Examining Board's test.

Optional Licensing requirements : The graduate from this program can take the Board Exam for Automotive Mechanic or Automotive Mechanic Technician.

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**TECHNOLOGY IN ADVANCED AUTOMATIC TRANSMISSIONS**


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**Program: Curricular Content**General Education Courses

<u>Code</u>	<u>Courses / Classes</u>	<u>Credits</u>
AMATE2D	Applied Mathematics	2
AREHU4D	Human Relations	1
CSEGU1D	Industrial Safety	<u>1</u>
		4

Concentration Courses

TIMAU1D	Introduction to Automotive	
Mechanics	3	
TMCI11D	Internal Combustion Engine and	
Laboratory	4	
TITAU1D	Introduction to Automatic	
Transmissions	4	
TSEEA	Electrical and Electronic Systems of the Automobile and	
Laboratory	6	
TCMTA2D	Mechanical Components in Automatic	
Transmissions	1	
TSEJA3D	Automobile Fuel Injection System (European, Japanese,	
	and American Automobiles) and Laboratory	6
TTATD3D	Automatic Transmissions (Front-End Drive of European, Japanese	
	and American Automobiles) and Laboratory	4
TDIEJ3D	Differentials and Drive	
Axles	2	
TTATT4D	Automatic Transmissions (Rear-End Drive of European, Japanese,	
	6	
	and American Automobiles) and Laboratory	
TSCEL4D	Electronic Controls and OBD II System	
	(II Generation Computerized Diagnosis)	<u>5</u>
		41

Complementary Courses

CICOM2 Introduction to the Computer	<u>3</u>
	3

Program Summary

<b>Total Credit Hours</b>	<b>:</b>	<b>48</b>
<b>Total Clock Hours</b>	<b>:</b>	<b>960</b>
<b>Program Length</b>	<b>:</b>	<b>12 Months</b>

**TECHNOLOGY IN INDUSTRIAL ELECTRICITY WITH PLC AND RENEWABLE ENERGY**  
**(1,200 CLOCK HOURS / 60 CREDIT HOURS)**  
**(15 months)**

**Program Description:**

In this program the students use drawings, schematics, and diagrams to perform residential, commercial, industrial electrical installations, and renewable energy systems. AC/DC engine installations are done, by using magnetic controls and pressure buttons stations in single phase and three phase installations in engines and industrial equipment. In addition, students will acquire knowledge on the installation of renewable energy systems. The National Electricity Code and Electric Power Authority Procedures are studied to comply with current requirements. Repairs and maintenance are provided to residential and industrial electrical installations. Specialized tools and equipment is used for some electrical tasks. The students will also learn the safety rules and regulating agencies that apply to this trade; such as: OSHA (Occupational Safety and Health Administration); they will also learn the different State laws of the Electrician profession.

This program also prepares students to work in positions, such as: Electrical Installations Repairer, PLC Programmer, Electrical Installations (Residential/Industrial) Maintenance Technician, Renewable Energy Systems Installer, Refrigeration Technician Assistant, Network Installations, Alarm and Sound Systems Installer, Welder, Transformers Maintenance and Repair Technician, Construction Electrician, Electrical Equipment Adjuster, Manufacturer of Illumination Equipment and of Electrical Appliances, Wholesaler of Electrical Supplies, Manufacturer of Semiconductors and Electronic Components.

**Program Objective:**

The Technology in Industrial Electricity with PLC and Renewable Energy program prepares the student to install, operate, maintain, and repair residential, commercial, and industrial electrical and renewable energy systems. The student will also be prepared to install high and low voltage electrical circuits and components in industrial, commercial, and residential areas. In addition, students will be able to take the Electrician's Helper and Electricians Board Exams, obtain the corresponding licenses, and be able to perform the trade. The students will also learn the safety rules and regulating agencies that apply to this trade; such as: OSHA (Occupational Safety and Health Administration); they will also learn the different State laws of the Electrician profession.

The Institution offers reviews for the different programs for which licensure is required; this is carried out at the end of the program. During the program of study, the students are prepared with the necessary skills and knowledge to take the Examining Board's test.

Licensing requirements : During or at the end of the program of study, students or graduates can take the Electrician Helper's Examining Board test. After one year of working in the profession, the Government of Puerto Rico requires that they take Board Exam for Electricity Expert.

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**TECHNOLOGY IN INDUSTRIAL ELECTRICITY WITH PLC AND RENEWABLE ENERGY**


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**Program: Curricular Content****General Education Courses**

<b><u>Code</u></b>	<b><u>Courses / Classes</u></b>	<b><u>Credits</u></b>
AMATE1D	Applied Mathematics	2
AINGL5D	Technical English	<u>2</u>
	4	

**Concentration Courses**

TFEER1D	Fundamentals of Electricity and Renewable Energy	3
TRCEN1D	National Electrical Code and Regulations	2
TLIPD1D	Reading and Interpretation of Electrical Blueprints	4
TSIES2D	Underground Electrical Installations Service	3
TIELR2D	Residential Electrical Conduit Installations and Laboratory	5
TEREN2D	Renewable Energy	4
TSDCD3D	Direct Current Systems	3
TPCIL3D	Electrical Panels, Branch Circuits, Transfer Switches and Laboratory	5
TTLAE3D	Transformers, Aerial Lines and Laboratory	3
TCCELL4D	Electrical Circuits and Controls and Laboratory	3
TRMME4D	Repair and Maintenance of Electrical Motors and Laboratory	3
TILEL4D	Electrical Illumination and Laboratory	4
TFUED4D	Fundamentals of Electronics	2
TCPLC5D	Programming Logic Controls (PLC) and Laboratory	4
TGPOT5D	Power Generators	2
TLEOC5D	Occupational Experience Laboratory	4
		54

**Complementary Courses**

CSEGU1D	Industrial Safety	1
CCOST3D	Costs and Estimates	<u>1</u>
		2

**Program Summary**

<b>Total Credit Hours</b>	<b>:</b>	<b>60</b>
<b>Program Length</b>	<b>:</b>	<b>15 Months</b>
<b>Total Clock Hours</b>	<b>:</b>	<b>1,200</b>

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**TECHNOLOGY IN REFRIGERATION AND AIR CONDITIONING**  
**(1,200 Clock Hours / 60 Credit Hours)**  
**(15 months)**

**Program Description:**

This program has been carefully designed to offer the student the technical knowledge and skills that will prepare him/her to develop at a high-efficiency level as a Refrigeration and Air Conditioning Technician in the private industry or own his/her business.

This occupation requires the Refrigeration and Air Conditioning Technician license.

This program also prepares students to work in positions, such as: Refrigeration and Air Conditioning Technician, Equipment Salesperson, Air Units Installer, Repair of Electrical Appliances, Electrician Assistant, Automotive Air Conditioning Technician, Air Conditioning Maintenance and Repair Technician, Service Advisor, Manufacturing of Ventilation, Heating, AA and Commercial Refrigeration.

**Program Objective:**

Upon completion of the program, the student will be prepared with the necessary skills and knowledge to take the Refrigeration and Air Conditioning Technician test, obtain the corresponding license and perform his job wherever needed. He will also have the opportunity for establishing his/her own business. It is expected that the graduate develops a high-efficiency level in all tasks related to the Refrigeration and Air Conditioning Courses.

The Institution offers reviews for the different programs for which licensure is required; this is carried out at the end of the program. During the program of study, the students are prepared with the necessary skills and knowledge to take the Examining Board's test.

Licensing requirements : During the course of their program of study and/or when completed, students must take the EPA (Environmental Protection Agency) 608 and 609 Certifications. Once these certifications are passed, graduates can take the Board Exam for Technician in Refrigeration and Air Conditioning.

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**TECHNOLOGY IN REFRIGERATION AND AIR CONDITIONING**


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**Program: Curricular Content****General Education Courses**

<b><u>Code</u></b>	<b><u>Courses / Classes</u></b>	<b><u>Credits</u></b>
AMATE4D	Applied Mathematics	2
AINGL1D	Technical English	2
AREHU3D	Human Relations	<u>1</u>
		5

**Concentration Courses**

TFUEL1D	Electricity Fundamentals	3
TFDAC1D	Fundamentals of Refrigeration and Air Conditioning	3
TFMRA2D	Mechanical Fundamentals of Refrigeration and Air Conditioning	3
TRACDL2D	Residential Refrigeration and Air Conditioning and Laboratory	4
TISRA4D	Introduction to Complex Refrigeration and Air Conditioning Systems	2
TRACCL3D	Commercial Refrigeration and Air Conditioning and Laboratory	4
TACIN4D	Industrial Refrigeration and Air Conditioning and Laboratory	5
TCCEL3D	Electrical Circuits and Controls and Laboratory	5
TSACOL5D	Air Conditioning System of the Automobile and Laboratory	4
TLIPL1D	Reading and Interpretation of Blueprints	3
TFDEL3D	Electronics Fundamentals	2
TCPLC4D	Programmable Logic Controllers (PLC) and Laboratory	3
TLEXO5D	Occupational Experience Laboratory	<u>6</u>
		47

**Complementary Courses**

CSEGU1D	Industrial Safety	1
CCOST4D	Costs and Estimates	1
CSOLDL4D	Welding and Laboratory	3
CICOM2D	Introduction to Computers	<u>3</u>
		8

**Program Summary**

<b>Total Credit Hours</b>	<b>:</b>	<b>60</b>
<b>Program Length</b>	<b>:</b>	<b>15 Months</b>
<b>Total Clock Hours</b>	<b>:</b>	<b>1,200</b>

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**TECHNOLOGY IN INDUSTRIAL WELDING**  
**(960 CLOCK HOURS / 48 CREDIT HOURS)**  
**(12 months)**

**Program Description:**

During the study of this program, the student will have the opportunity to relate with the theory and practice of different areas of this course. The student will acquire knowledge and skills necessary for the handling of specialized equipment with which he/she will do different joints and welding types. With this process, the student will weld aluminum, stainless steel, calamine; among others. With electrical arc, the student will do different welding types in industrial piping and will have the opportunity to weld and cut through oxyacetylene process and other related gases.

This program also prepares students to work in positions, such as: Electrical Welder, Acetylene Welder, Metals Cutting, Drawing and Interpretation of Blueprints, Industrial Pipe Welder, Electrician Assistant.

**Program Objective:**

The Technology in Industrial Welding Program prepares the student with the necessary knowledge and skills in the handling of specialized welding; the student will also perform electrical arch welding, cutting with oxyacetylene, and make tasks in aluminum, steel, calamine, and other related metals. The student will be able to establish his/her own business.



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**TECHNOLOGY IN INDUSTRIAL WELDING**


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**Program: Curricular Content****General Education Courses**

<b><u>Code</u></b>	<b><u>Courses / Classes</u></b>	<b><u>Credits</u></b>
AMATE1D	Applied Mathematics	2

**Concentration Courses**

TISOL1D	Introduction to Welding	2
TDIPS2D	Drawing and Interpretation of Welding Blueprints and Symbols	2
TSPPL1D	Flat Position Welding and Laboratory	4
TSPHL2D	Horizontal Position Welding and Laboratory	4
TPUSL1D	Preparation of Welding Joints and Laboratory	4
TSPVL2D	Vertical Position Welding and Laboratory	4
TSSCL3D	Over the Head Welding and Laboratory	4
TSESL3D	Specialized Welding and Laboratory	5
TPCMB3D	Cutting Processes, Metal Base Preparation, and Laboratory 2	
TLEXO4D	Occupational Experience Laboratory	6
TSTIL4D	Industrial Pipe Welding and Laboratory	6
		43

**Complementary Courses**

CSEGU3D	Industrial Safety	2
CCOST5D	Costs and Estimates	$\frac{1}{3}$

**Program Summary**

<b>Total Credit Hours</b>	<b>:</b>	<b>48</b>
<b>Program Length</b>	<b>:</b>	<b>12 Months</b>
<b>Total Clock Hours</b>	<b>:</b>	<b>960</b>

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**TECHNOLOGY IN MARINE MECHANICS WITH ELECTRONIC SYSTEMS**  
**(1,200 CLOCK HOURS / 60 CREDIT HOURS)**  
**(15 months)**

**Program Description:**

During the study of this program, the student will learn to diagnose, repair and give the necessary maintenance to different marine vessels used in the industry either commercial or for leisure. The student will learn and apply the use of different tools and necessary equipment within the course to perform the corresponding learning tasks. This program includes the repair and maintenance of different types of engines such as: inboard and outboard (gasoline and diesel). The student will also study everything related to electrical, electronic and computerized systems.

This program also prepares students to work in positions, such as: Boats Selling Advisor, Repair Maintenance and Diagnosis of Marine Vessels, Inboard and Outboard Motors Mechanic, Operator of Electrical, Electronical, and Computerized Systems; Assemblers, Boats Concessionary.

**Program Objective:**

Upon completion of the program, the student will be prepared with the knowledge and skills necessary to work as a Marine Mechanics technician. It is important to obtain the corresponding State License. The student will also have the opportunity to establish his/her own business as soon as the corresponding experience in this field is acquired.

The Institution offers reviews for the different programs for which licensure is required; this is carried out at the end of the program. During the program of study, the students are prepared with the necessary skills and knowledge to take the Examining Board's test.

Optional Licensing requirements : Students from this program will have the option of taking the Automotive Technicians or Automotive Mechanics Board Exam of Puerto Rico.

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**TECHNOLOGY IN MARINE MECHANICS WITH ELECTRONIC SYSTEMS**


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**Program: Curricular Content****General Education Courses**

<b><u>Code</u></b>	<b><u>Courses / Classes</u></b>	<b><u>Credits</u></b>
AMATE1D	Applied Mathematics	2
AINGL4D	Technical English	2
AREHU4D	Human Relations	<u>1</u>
		5

**Concentration Courses**

TIMMA1D	Introduction to Marine Mechanics	3
TIMAR1D	Marine Introduction	3
TMCIN1D	Internal Combustion Engine and Laboratory	4
TFDEL2D	Electronics Fundamentals	2
TSIAC2D	Air Conditioning System and Laboratory	3
TSICO3D	Computerized Injection System and Laboratory	5
TSCOL3D	Fuel System (Jet Ski and Outboard) and Laboratory	4
TSIEL4D	Basic Electrical System	1
TSCEG4D	Gas Emission and Control System and Laboratory	3
TSEEA4D	Electrical and Electronic System and Laboratory	5
TCALA4D	Trailers and Laboratory	3
TSTFL5D	Power Transmission System and Laboratory	6
TOCUP5D	Occupational Experience Laboratory	<u>5</u>
		47

**Complementary Courses**

CSEGU3D	Industrial Safety	1
CCOST5D	Costs and Estimates	1
CSOLDL2D	Welding and Laboratory	3
CICOM1D	Introduction to Computers	<u>3</u>
		8

**Program Summary**

<b>Total Credit Hours</b>	<b>:</b>	<b>60</b>
<b>Program Length</b>	<b>:</b>	<b>15 Months</b>
<b>Total Clock Hours</b>	<b>:</b>	<b>1,200</b>

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**TECHNOLOGY IN COLLISION AND AUTO BODY REPAIR**  
**(1,200 CLOCK HOURS / 60 CREDIT HOURS)**  
**(15 months)**

**Program Description:**

During the study of this program, the student will have the opportunity to acquire the theoretical and practical knowledge of the profession. He/she will also acquire knowledge and skills in handling specialized collision repair equipment and paint mixture. With this process, the student will be capable of handling the automobile's body materials and the chemical process of painting and finishing. The student will also study the vehicle's structure and different quotation and estimation methods.

This program also prepares students to work in positions, such as: Collision Repair Technician, Installer and Repairer of Automobile Window Panes, Paints Technician, Welder, Metal Fabricator, Racing Team Technician, Investigator of Used Parts; Maintenance of Yachts, Furniture, and Articles, Valuer for Insurance Companies.

**Program Objective:**

The Technology in Automobile Collision Repair Program offers the student a complete training of advanced techniques in this field. The student will be able to handle bodywork materials of the automobile, the painting and finishing process, and will have the knowledge to make quotations and estimates of the work to be performed. The student will also learn the safety rules and first aid procedures required for this trade, and will be able to establish his/her own business.

The Institution offers reviews for the different programs for which licensure is required; this is carried out at the end of the program. During the program of study, the students are prepared with the necessary skills and knowledge to take the test.

Licensing requirements : The Puerto Rico Automotive Technicians and Automotive Mechanics Examining Board requires graduates from this program to take the Board Exam for Automotive Mechanic or Automotive Mechanic Technician.

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**TECHNOLOGY IN COLLISION AND AUTO BODY REPAIR**


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**Program: Curricular Content****General Education Courses**

<b><u>Code</u></b>	<b><u>Courses / Classes</u></b>	<b><u>Credits</u></b>
AMATE3D	Applied Mathematics	2
AINGL4D	Technical English	2
AREHU3D	Human Relations	<u>1</u>
	5	

**Concentration Courses**

TMECA1D	Automotive Mechanics applied to Collision and Auto Body Repair	6
TFBAH1D	Basic Fundamentals of Collision and Auto Body Repair	5
TSOES2D	Specialized Welding and Laboratory	3
TEEST2D	Structural Straightening and Laboratory	6
TCOLO3D	Colorimetry and Laboratory	3
TPREPS3D	Preparation of Surfaces and Laboratory	6
TAPAC4D	Finishing Application and Laboratory	5
TPRPL4D	Plastics Preparation and Repair	4
TPSEE5D	Principles of Electrical and Electronic System	2
TSDRL5D	Repair of Small Damages and Laboratory	2
CABTH5D	Basic Administration of the Collision Repair Shop	2
TLEXO5D	Occupational Experience Laboratory	<u>6</u>
		50

**Complementary Courses**

CSEGU1D	Industrial Safety	1
CCOST4D	Costs and Estimates	1
CICOM2D	Introduction to Computers	<u>3</u>
		5

**Program Summary**

<b>Total Credit Hours</b>	<b>:</b>	<b>60</b>
<b>Program Length</b>	<b>:</b>	<b>15 Months</b>
<b>Total Clock Hours</b>	<b>:</b>	<b>1,200</b>

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**MOTORCYCLES REPAIR AND MAINTENANCE**  
**(48 CREDITS/ 960 HOURS)**  
**(12 months)**

**Program Description:**

This course has been designed to provide the student with the technical knowledge and skills required as a motorcycles repair and maintenance technician.

The following areas are studied in this course: 2 strokes and 4 strokes internal combustion, motorcycles electrical and electronic system, lubrication and cooling, transmissions, ignition systems and accessories; among others. Different applications in the industry will also be provided including road motorcycles, sports, racing and tourism.

This program also prepares students to work in positions, such as: Small Engines Technician, Parts Assembler, Motors Repair and Maintenance Technician, Diagnosis, Equipment and Motorcycles Repair, Motorcycles Maintenance, Sale of parts; motorcyles, and equipment.

**Program Objective:**

Upon completion of this program, the student will be prepared with the necessary skills and knowledge to perform, with a high level of effectiveness, motorcycles repair and maintenance and that of related equipment.

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**MOTORCYCLES REPAIR AND MAINTENANCE**


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**Program: Curricular Content****General Education Courses**

<b><u>Code</u></b>	<b><u>Courses/Classes</u></b>	<b><u>Credits</u></b>
AMATE2D	Applied Mathematics	2
AREHU4D	Human Relations	$\frac{1}{3}$

**Concentration Courses**

<b><u>Code</u></b>	<b><u>Courses/Classes</u></b>	<b><u>Credits</u></b>
TIMMO1D	Introduction to Motorcycles Mechanics	3
TMCMP1D	2 strokes and 4 strokes Internal Combustion Engine and Laboratory	5
TSEEMO2D	Electrical and Electronic System and Laboratory	4
TELMO2D	Lubrication and Cooling System and Laboratory	3
TSIGN2D	Ignition Systems	3
TSCCE3D	Fuel and Emission Control Systems and Laboratory	6
TTMOT3D	Transmissions and Laboratory	6
TSFSD4D	Brakes, Suspension, and Direction System and Laboratory	3
TACCE4D	Accessories and Laboratory	$\frac{5}{3}$

**Complementary Courses**

<b><u>Code</u></b>	<b><u>Courses/Classes</u></b>	<b><u>Credits</u></b>
CSEGU1D	Industrial Safety	1
CSOLDL4D	Welding and Laboratory	3
CICOM1D	Introduction to Computers	$\frac{3}{7}$

**Program Summary**

<b>Total Credits</b>	<b>:</b>	<b>48</b>
<b>Program Length</b>	<b>:</b>	<b>12 Months</b>
<b>Total Clock Hours</b>	<b>:</b>	<b>960</b>

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**TECHNOLOGY IN RACING MECHANICS**  
**(48 CREDITS – 960 Hours)**  
**(12 months)**

**Program Description:**

In this program, the student will learn to diagnose, repair and provide the necessary maintenance to different vehicles prepared for the Racing sport. The students will learn and apply the use of different special tools and equipment to perform learning tasks. This program includes the construction, alteration, repair and maintenance of different types of engines. Different types of fuels used in racing engines will also be used.

The student will also learn the safety rules that apply to this trade and First Aid procedures.

This program also prepares students to work in positions, such as: Engine Diagnosis, Transmissions Repairer, Modification Mechanics, Electromechanics Technician, Installer of Racing Wiring, Salesperson (accessories and racing equipment).

**Program Objective:**

The Technology in Racing Mechanics Program prepares students for the construction, alteration, repair and maintenance of racing engines; they will also learn different components of racing mechanics which include: chassis, differential, transmissions, and machine shop. With this knowledge they will be prepared to enter the labor market. The student will also learn the safety rules and first aid procedures required for this trade.

Optional Licensing requirements : Students from this program will have the option of taking the Automotive Mechanics test of the Examining Board of Puerto Rico.



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**Curricular Content**

<u>Code</u>	<u>Courses / Classes</u>	<u>Credits / Clock Hours</u>	
AMEFO	Racing Measurements and Formulas	2	40
TFDMR	Fundamentals of Racing Mechanics	4	80
TEMMR1	Construction and Modification of Racing Engines I and Laboratory	6	120
TSACL	Racing Fuel Feeding System and Laboratory (Gasoline, Methanol, Nitro, and Turbo)	4	80
TEMMR2	Construction and Modification of Racing Engines II and Laboratory	3	60
TSEEAR	Electrical and Electronic System of the Racing Automobile and Laboratory (Racing Wiring)	4	80
TFMSH	Machine Shop Fundamentals	3	60
TMASH	Machine Shop Work and Laboratory	6	120
TSFL	Brakes System in Racing Automobiles and Laboratory	3	60
TCCSL	Chassis Construction, Suspension, and Laboratory	3	60
TTFLR	Power Transmission and Laboratory (Differential, Axle, Pinion, Automatic, and Manual)	4	80
CSOLDL	Welding and Laboratory	3	60
CICOM	Introduction to Computers (Laptop) with Racing Applications	3	60

**Program Summary**

<b>Total Credits</b>	<b>:</b>	<b>48</b>
<b>Program Length</b>	<b>:</b>	<b>12 months</b>
<b>Total Clock Hours</b>	<b>:</b>	<b>960 hours</b>

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**TOOL AND DIE MAKER TECHNICIAN**  
**(36 CREDITS – 720 HOURS)**  
**(9 months)**

**Program Description:**

The Tool and Die Maker program, trains students with theoretical-practical knowledge to work in the industrial manufacturing field; it provides knowledge to deal with continuous conventional and technological changes thus preparing them to become professionals capable of performing design and production analysis and a technician in emerging manufacturing technologies.

**Program Objective:**

This program has been designed to provide students with the theoretical knowledge and technical skills required in the Tool and Die making industry. Mathematical knowledge will be applied during the teaching-learning process to design, custom produce, offer maintenance, and solve problems related to processes and products. The program is directed towards developing in students the capability of analyzing specifications, inspect, and approve finished products and the application and construction of designs. The graduate from this program will be able to work as a *Tool and Die Maker*.

This program also prepares students to work in positions, such as: General Mechanic (machinery), Welder, Parts Department employee, Machinist, and Designer.

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**TOOL AND DIE MAKER TECHNICIAN**


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**General Education Courses**

<b><u>Code</u></b>	<b><u>Courses/Classes</u></b>	<b><u>Credits</u></b>
AMAT1	Applied Mathematics	3

**Concentration Courses**

TTBAL1	Bench Work and Laboratory	3
TTDIT1	Technical Drawing	3
TTORN2	Lathe and Laboratory	3
TTMP2	Metals and Plastics	3
TCAD2	CAD Solidworks®	3
TFRE3	Milling and Laboratory	3
TREC3	Grinder and Laboratory	3
TCNC3	CNC and Laboratory	3
CSOLDL3	Welding and Laboratory	<u>3</u>
		27

**Complementary Courses**

CSEGE1	Industrial Safety	3
CTCOM1	Computing Principles	<u>3</u>
		6

**Program Summary**

<b>Total Credits</b>	<b>:</b>	<b>36</b>
<b>Program Length</b>	<b>:</b>	<b>9 Months</b>
<b>Total Clock Hours</b>	<b>:</b>	<b>720</b>



**BRANCH CAMPUS OF  
ORLANDO, FLORIDA**

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**TECHNOLOGY IN DIESEL MECHANICS**  
**(48 CREDITS – 960 Hours)**  
**(12 months)**

**Program Description:**

In this program the student will learn to repair and provide maintenance to vehicles and diesel equipment by using special tools, equipment and precision instruments. Failures in diesel engines are diagnosed; they are disassembled, examined, and defective parts are replaced. Other engine systems are studied, such as: injectors systems, hydraulic systems, combustion systems, brakes systems, and power transmissions systems.

The student will also learn the safety rules that apply to this trade.

This program also prepares students to work in positions, such as: Industrial Equipment Repair Technician, Welder, Racing Team Technician, Motorcycles Mechanic, Performance Engine Tuning, Service Advisor, Parts Department Employee, or establish their own business.

**Program Objective:**

The Technology in Diesel Mechanics Program has been designed to offer the student a complete training of the most advanced techniques in the Diesel Mechanics field; it also provides training in diagnosis and repair of diesel engines. The student will have the capability of working with injection systems, brakes systems, hydraulic system, and transmission system, and will also learn the safety rules and first aid procedures required for this trade.

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**TECHNOLOGY IN DIESEL MECHANICS**


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**Curricular Content**

<u>Code</u>	<u>Courses / Classes</u>	<u>Credits / Clock Hours</u>
AMEFO	Diesel Measurements and Formulas	2 40
AREHU	Human Relations	1 20
TIMDI	Introduction to Diesel Mechanics	3 60
TCID1	Diesel Internal Combustion Engine I and Laboratory	6 120
TCID2	Diesel Internal Combustion Engine II and Laboratory	5 100
TTFDI	Diesel Power Transmission System and Laboratory	4 80
TFDEL	Fundamentals of Electronics	2 40
TDCCS	Diesel Climate Control System and Laboratory	3 60
TSEDI	Diesel Electrical and Electronic Systems and Laboratory	3 60
TSRFD	Diesel Wheels and Brakes Systems and Laboratory	3 60
TELDI	Diesel Cooling and Lubrication Systems and Laboratory	3 60
TSHIN	Diesel Hydraulic and Pneumatic Systems and Laboratory	3 60
TSIEDL	Diesel Injection System and Laboratory	6 120
CICOM	Introduction to Computers	3 60
CSEGU	Industrial Safety	1 20

**Program Summary**

<b>Total Credits</b>	<b>:</b>	<b>48</b>
<b>Program Length</b>	<b>:</b>	<b>12 months</b>
<b>Total Clock Hours</b>	<b>:</b>	<b>960 hours</b>

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**TECHNOLOGY IN INDUSTRIAL WELDING**  
**(48 CREDITS – 960 Hours)**  
**(12 months)**

**Program Description:**

During the study of this program, the student will have the opportunity to relate with the theory and practice of different areas of this course. The student will acquire knowledge and skills necessary for the handling of specialized equipment with which he/she will do different joints and welding types. With this process, the student will weld aluminum, stainless steel, calamine; among others. With electrical arc, the student will do different welding types in industrial piping and will have the opportunity to weld and cut through oxyacetylene process and other related gases.

The student will also learn the safety rules that apply to this trade and First Aid procedures.

This program also prepares students to work in positions, such as: Electrical Welder, Acetylene Welder, Metals Cutting, Drawing and Interpretation of Blueprints, Industrial Pipe Welder, Electrician Assistant, or establish their own business.

**Program Objective:**

The Technology in Industrial Welding Program prepares the student with the necessary knowledge and skills in the handling of specialized welding; the student will also perform electrical arch welding, cutting with oxyacetylene, and make tasks in aluminum, steel, calamine, and other related metals. The student will also learn the safety rules and first aid procedures required for this trade, and will be able to establish his/her own business.

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**TECHNOLOGY IN INDUSTRIAL WELDING**


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**Curricular Content**

<u>Code</u>	<u>Courses / Classes</u>	<u>Credits / Clock Hours</u>	
AMEFO	Welding Measurements and Formulas	2	40
TISOL	Introduction to Welding	2	40
TDIPS	Drawing and Interpretation of Blueprints and Welding Symbols	4	80
TSPPL	Flat Position Welding and Laboratory	4	80
TFUEL	Fundamentals of Electricity	2	40
TSPHL	Horizontal Position Welding and Laboratory	4	80
TPUSL	Preparation of Welding Joints and Laboratory	2	40
TSPVL	Vertical Position Welding and Laboratory	4	80
TSOAL	Welding and Cutting with Oxyacetylene and Laboratory	4	80
TSSCL	Over the Head Welding and Laboratory	4	80
TSESL	Specialized Welding and Laboratory	5	100
TSTIL	Industrial Piping Welding and Laboratory	6	120
CSEGI	Industrial Safety	2	40
CCOST	Costs and Estimates	1	20
TFDEL	Fundamentals of Electronics	2	40

**Program Summary**

<b>Total Credits</b>	<b>:</b>	<b>48</b>
<b>Program Length</b>	<b>:</b>	<b>12 months</b>
<b>Total Clock Hours</b>	<b>:</b>	<b>960 hours</b>



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**TECHNOLOGY IN RACING MECHANICS**  
**(48 CREDITS – 960 Hours)**  
**(12 months)**

**Program Description:**

In this program, the student will learn to diagnose, repair and provide the necessary maintenance to different vehicles prepared for the Racing sport. The students will learn and apply the use of different special tools and equipment to perform learning tasks. This program includes the construction, alteration, repair and maintenance of different types of engines. Different types of fuels used in racing engines will also be used.

The student will also learn the safety rules that apply to this trade and First Aid procedures.

This program also prepares students to work in positions, such as: Engine Diagnosis, Transmissions Repairer, Modification Mechanics, Electromechanics Technician, Installer of Racing Wiring, Salesperson (accessories and racing equipment).

**Program Objective:**

The Technology in Racing Mechanics Program prepares students for the construction, alteration, repair and maintenance of racing engines; they will also learn different components of racing mechanics which include: chassis, differential, transmissions, and machine shop. With this knowledge they will be prepared to enter the labor market. The student will also learn the safety rules and first aid procedures required for this trade.

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**TECHNOLOGY IN RACING MECHANICS**


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**Curricular Content**

<u>Code</u>	<u>Courses / Classes</u>	<u>Credits / Clock Hours</u>	
AMEFO	Racing Measurements and Formulas	2	40
TFDMR	Fundamentals of Racing Mechanics	4	80
TEMMR	Construction and Modification of Racing Engines I and Laboratory	6	120
TSACL	Racing Fuel Feeding System and Laboratory (Gasoline, Methanol, Nitro, and Turbo)	4	80
TEMMR	Construction and Modification of Racing Engines II and Laboratory	3	60
TSEEAR	Electrical and Electronic System of the Racing Automobile and Laboratory (Racing Wiring)	4	80
TFMSH	Machine Shop Fundamentals	3	60
TMASH	Machine Shop Work and Laboratory	6	120
TSFL	Brakes System in Racing Automobiles and Laboratory	3	60
TCCSL	Chassis Construction, Suspension, and Laboratory	3	60
TTFLR	Power Transmission and Laboratory (Differential, Axle, Pinion, Automatic, and Manual)	4	80
CSOLDL	Welding and Laboratory	3	60
CICOM	Racing Computer Programming	3	60

**Program Summary**

<b>Total Credits</b>	<b>:</b>	<b>48</b>
<b>Program Length</b>	<b>:</b>	<b>12 months</b>
<b>Total Clock Hours</b>	<b>:</b>	<b>960 hours</b>

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**AUTOMOTIVE MECHANICS**  
**(48 CREDITS – 960 HOURS)**  
**(12 months)**

**Program Description:**

This program has been designed to provide the student with the required knowledge and skills to be able to work in this profession.

The following areas are studied: carburetion, internal combustion, electric and electronic system, front end and transmission. The program offers an academic formation and integrates intellectual, technical and human aspects and makes use of modern tools and equipment used in this profession.

The program also prepares students to work in positions such as: automotive mechanic, light mechanics, alignment, motorcycles mechanic, parts department employee.

The student will also learn the safety rules that apply to this trade and First Aid procedures.

**Program Objective:**

The Automotive Mechanics program prepares students with the necessary knowledge and skills to inspect, maintain, and repair cars and light trucks. They will also use computerized shop equipment and work with electronic components while maintaining their skills with traditional hand tools; they will also perform hands-on practice and laboratories as well as learn tasks related to automobiles' parts and tools.

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**AUTOMOTIVE MECHANICS**


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**Program: Curricular Content****General Education Courses**

<b><u>Code</u></b>	<b><u>Courses / Classes</u></b>	<b><u>Credits / Clock Hours</u></b>	
AMATE	Applied Mathematics	2	40
AREHU	Human Relations	1	20
TIMAU	Introduction to Automotive Mechanics	3	60
TMCI1	Internal Combustion Engine of the Automobile and Laboratory	5	100
TSCOAL	Fuel System of the Automobile and Laboratory	3	60
TCEGL	Gas Emission and Control System of the Automobile and Laboratory	3	60
TSEEA	Electrical and Electronic System of the Automobile and Laboratory	6	120
TSFTA	Breaks System, Front-End, Alignment of the Automobile and Laboratory	5	100
TSACA	Air Conditioning System of the Automobile and Laboratory	4	80
TSEJA	Computerized Injection System of European, Japanese, and American Automobiles and Laboratory	6	120
TSTFUL	Power Transmission System of the Automobile and Laboratory	6	120
CSEGU	Industrial Safety	1	20
CICOM	Introduction to Computers	3	60

**Program Summary**

<b>Total Credit Hours</b>	<b>:</b>	<b>48</b>
<b>Total Clock Hours</b>	<b>:</b>	<b>960</b>
<b>Program Length</b>	<b>:</b>	<b>12 months</b>

## 6.4 COURSE DESCRIPTIONS

### 6.4.1 ASSOCIATE DEGREE

#### **ASSOCIATE DEGREE IN AUTOMOTIVE MECHANICS TECHNOLOGY**

##### **TGPMA1 - Principles of Automotive Mechanics – 3 Credits**

**Lecture hours – 60**

**Pre-requisites - None**

This course provides basic knowledge of the operation of the different systems in a motor vehicle. The course clearly presents valves, connecting rods, crankshaft, pistons, cylinder blocks and other systems, working in a well-articulated and highly precise manner.

##### **TGMCL2 - Internal Combustion Engine and Laboratory – 6 Credits**

**Lecture – 40 hours/Laboratory – 80 hours**

**Pre-requisites -TGPMA**

This course provides broad knowledge of the internal and external operation of an engine and engine repair. The different technological diagnostic methods will also be discussed with regard to their use in repairing internal combustion engines.

##### **TGSICL3 - Fuel Injection System and Laboratory – 3 Credits**

**Lecture – 20 hours/Laboratory – 40 hours**

**Pre-requisites –TGMCL, TGPMA**

This course clearly presents the principles of fuel injection. Fuel processes and the different kinds of fuel use in automobiles are explained. Mechanical fuel injection is discussed.

##### **TGSEL4 - Electrical and Electronic System of the Automobile and Laboratory – 3 Credits**

**Lecture – 20 hours/Laboratory – 40 hours**

**Pre-requisites -TGPMA**

This course includes the basic concepts of electricity and electronics in automobile systems. Trade terms and technological advances are presented as well as the systems that use electricity and electronics. The course also presents theory, mathematics, and physics as related to the proper operation of vehicles.

##### **TGSIL4 - Electronic Injection System and Laboratory – 6 Credits**

**Lecture – 40 hrs./Laboratory – 80 hrs**

**Pre-requisites –TGPMA, TGMCL**

Automotive injection systems have undergone many changes and this is due to the requirements of large environmental protection agencies. Electronics and computers are major changes in these systems. This course covers technological advances and explains changes and variation and the different ways to diagnose each type of electronic injection system.

##### **TGSAC5 - Air-Conditioning System of the Automobile and Laboratory – 3 Credits**

**Lecture – 20 hrs/Laboratory – 40 hrs**

**Pre-requisites –TGPMA, TGSEL**

This course provides basic knowledge of the operation of air conditioning systems as well as technological advances related to electronic and computerized control of air conditioning systems in vehicles.

**TGSDL5 – Direction, Suspension, Brakes System, and Laboratory – 3 Credits**

**Lecture – 20 hrs/Laboratory – 40 hrs**

**Pre-requisites -TGPMA**

This course provides knowledge of the operation, diagnosis, and relationship of the steering, suspension and brake systems. Importance is given to how the systems work separately and in coordination. The course also presents technological advances in the systems in terms of computerized controls.

**TGIH5 - Hydraulic Impulse – 3 Credits**

**Lecture – 20 hrs/Laboratory – 40 hrs**

**Pre-requisites –TGPMA, TGSEL, AGMAT**

This course presents the basic principles of hydraulic drives (fluid mechanics) in a clear and simple fashion. Hydraulic systems used in automobiles and their applications are explained.

**TGTFL6 - Power Transmission System, Differential and Laboratory – 3 Credits**

**Lecture – 20 hrs/Laboratory – 40 hrs**

**Pre-requisites –TGPMA, TGMCL, TGSEL**

One of the most important systems for engines is the power transmission system. The operation of the vehicle basically depends on transmission of power from the engine to the wheels. The transmission of power occurs through a configuration of gears and computer-controlled hydraulic and electronic components. The systems and their operation will be discussed as a whole as well as diagnosis and repair of each system and its components.

**TGFMD6 - Principles and Function of Diesel Engines – 3 Credits**

**Lecture – 20 hrs/Laboratory – 40 hrs**

**Pre-requisites –TGPMA, TGSIL**

This course clearly presents the principles of diesel engine operation. Basic aspects such as injection, lubrication and cooling systems, engine building, turbochargers, and peripheral systems are discussed.

**TGPAT7 - Advanced Practice in Automotive Technology – 6 Credits**

**Laboratory hrs – 120**

**Pre-requisites –TGPMA, TGMCL, TGSIL, TGSEL, TGSDL, TGTFL**

This course provides students with the opportunity to practice subject matter of previous courses. The shop environment is recreated where students will work like responsible members of the profession.

**TPRIN8 – Practice in the Industry – 6 credits**

**Practice hours – 120**

**Pre-requisites – TGPMA, TGMCL, TGSICL, TGSEL, TGSIL, TGSAC, TGSDL, TGTFL, TGPAT**

Practice in the industry is an educational process which offers students the opportunity of evaluating if the knowledge and skills acquired are sufficient and adequate to develop in the professional and technical field they have chosen to study. The learning process allows the student to integrate in a practical and effective way the theory and practice of what has been

learned in technical and academic classes.

**ASSOCIATE DEGREE IN TECHNOLOGY IN MECHANICAL ENGINEERING**

**TGDIT1 - Technical Drawing – 3 Credits**

**Lecture 20 hrs/Laboratory 40 hrs**

**Pre-requisites - None**

This course provides an introduction to basic concepts and terminology of the Graphic representation of different objects for their analysis and manufacturing. It develops skills in the use of drawing instruments applying pre-established rules for clear exposition of geometrical characteristics and the functionality of an object in particular for its development in the shop. It also provides an introduction to the CAD system.

**TGITIM – Introduction to Technology in Mechanical Engineering – 3 Credits**

**Lecture 60 hrs**

**Pre-requisites – None**

The purpose of this course is to present students with an introduction to the Technology in Mechanical Engineering field. The students will be exposed to various general topics related to the program, description, and courses with the purpose of developing basic technical abilities and knowledge. In addition, the following topics will be discussed: ethics, work opportunities, engineering concepts, leadership, and technological advances.

**TGPMP2 – Metals and Plastics – 3 Credits**

**Lecture 20 hrs/Laboratory 40 hrs**

**Pre-requisites –**

This course is based in the application and function of different types of materials knowing the characteristics and properties that these have with the purpose of understanding its behavior. It offers the student the opportunity to know the classification of materials, such as: metals and polymers in a way that he is capable of integrating it into a manufacturing process. It provides to the group the structures to apply techniques or tests for thermal treatment and metal hardening capacity and transformation of polymers starting with its composition.

**TGCAD3 – CAD - *SolidWorks*® – 3 Credits**

**Lecture 20 hrs/Laboratory 40 hrs**

**Pre-requisites –**

The CAD course prepares the student with advanced technical principles for scale Drawing and/or design of parts and tools. It also prepares the student on the reading and interpretation of blueprints. This course use the *SolidWorks*® program for computerized } drawing where student will be able to draw in 3D, produce auxiliary views and details, assembly views, and three views.

**TGBAL3 – Bench and Laboratory – 3 Credits**

**Lecture 20 hrs/Laboratory 40 hrs**

**Pre-requisites –**

This course is designed for the student to acquire the necessary knowledge and skills for the handling and use of: bench work equipment, hand tools and measuring and precision instruments. The student will make use of mathematical formulas, conversion of measuring systems, and tracing of metals by reading a blueprint for cutting and finishing the part with the corresponding hand tools. The student will apply basic formulas (RPM, TDS) to execute operations with the drill

and applying safety rules in the shop.

**TGTOML4 – Metal Lathe and Laboratory – 4 Credits**

**Lecture 30 hrs/Laboratory 50 hrs**

**Pre-requisites –**

This course has been designed for the student to acquire the necessary knowledge for handling a metal lathe as a tool machine, performing different tasks and applying mathematical skills required for problem solving and in the execution of different projects which function is to polish the basic skills that are necessary for the industry.

**TGMEC5 – Common Market – 2 Credits**

**Lecture 40 hrs**

**Pre-requisites –**

In this course, the student will have a panoramic vision of how the common currency and foreign currency market works when purchasing tools, equipment, and services in and out of the country. The student will also acquire knowledge on how the financial and currency exchange system work in the international market.

**TGFRE5 – Milling and Laboratory – 3 Credits**

**Lecture 30 hrs/Laboratory 50 hrs**

**Pre-requisites –**

This course has been designed for the student to acquire the necessary knowledge and skills for handling and using a milling. During the course, the student will execute a variety of projects to polish his abilities when handling a milling to be able to comply with industry demands. When performing the operations, the student will apply technical information related to the machine's mechanism; RPM, TDS, and advance; among others.

**TGFRAV6 – Advanced Fabrication Techniques – 3 Credits**

**Laboratory 20 hrs/Laboratory 40 hrs**

**Pre-requisites –**

This course emphasizes the methodology to be used in the procedures of advanced operations in millings and rectifiers. The student will acquire knowledge and skills required in this area so that he can develop individualized techniques that are required to compete in the industry. It provides students the opportunity to develop and/or create projects and useful tools by considering adequate materials and formulas required in the fabrication process.

**TGDTR6 – Dies Design and Construction and Laboratory – 6 Credits**

**Lecture 40 hrs/Laboratory 80 hrs**

**Pre-requisites –**

This course has been structured to provide the student with the knowledge of principles and applications of a die and its design. The laboratory is guided towards fabricating a die by applying CAD (*SolidWorks*®) for the graphic design and mechanization processes by using machine tools (die, milling, rectifier, drill) for achieving the final product and promoting teamwork, good manufacturing practices, shop safety, and blueprints interpretation.



**TGSCL7 – CNC and Laboratory – 3 Credits****Lecture 20 hrs/Laboratory 40 hrs****Pre-requisites –**

This course has been designed so that student understands CNC (Computerized Numerical Control); the student will learn how to prepare manual and computerized programs, the system's language, and how to calculate coordinates in a Cartesian or rectangular blueprint. He student will work with the *G Code* numerical language and will prepare programs to be used by this machine, will design and work on parts by using angles and radios in milling as well as in CNC.

**TGHNE7 – Hydraulics and Pneumatics – 3 credits****Lecture 20 hrs/Laboratory 40 hrs****Pre-requisites –**

This course has been designed to provide the student the necessary knowledge to comprehend, modify, and repair hydraulic and pneumatic systems of industrial machinery that is used for manufacturing procedures. The knowledge to interpret and understand pneumatic symbols is offered in a given drawing. The student will also work with pneumatic symbols to create a system and solve pneumatic situations ; failures and errors will be identified in any hydraulic or pneumatic system.

**TPRIN8 – Practice in the Industry – 6 credits****Practice hours – 120****Pre-requisites – TGBAL, TGTAL, TGTML, TGLDM, TGFRL, TGREL, TGDTR, TGLTR**

Practice in the industry is an educational process which offers students the opportunity of evaluating if the knowledge and skills acquired are sufficient and adequate to develop in the professional and technical field they have chosen to study. The learning process allows the student to integrate in a practical and effective way the theory and practice of what has been learned in technical and academic classes.

**ASSOCIATE DEGREE IN TECHNOLOGY IN ELECTRICAL ENGINEERING****TGFEER1 – Fundamentals of Electricity with Renewable Energy and Laboratory – 3 Credits****Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs****Pre-requisites - None**

This course studies the solution of problems in AC/DC circuits and the familiarization of basic electricity concepts, such as: magnetism and electrical energy generation.

**TGIEL2 - Residential Electrical Installations and Laboratory – 3 Credits****Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs****Pre-requisites –TGFEER**

This course prepares students to install residential electrical wiring, ground and exposed, to diagnose electrical problems, and perform necessary repairs according to the National Electrical Code and the Puerto Rico Electric Power Authority.

**TGDIT3 - Technical Drawing – 3 Credits****Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**

The subject matter of this course has been organized to provide a more significant role for draftsmanship training. Students will learn and develop skills in the use of the industrial graphic language and the application and construction of geometrical figures.

**TGSIL3 - Illumination Systems and Laboratory– 3 Credits**  
**Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**  
**Pre-requisites –TGIEL**

This course recognizes the importance of luminaries in the field of electricity and discusses the elements and components of modern luminaries. Covers measurement for proper operation of the system.

**TGMML4 - Maintenance of Electrical Motors and Laboratory – 3 Credits**  
**Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**  
**Pre-requisites –TGFEER, AGMAG, AGMAT, AGFIT**

The course provides basic knowledge of maintenance and repair of single and three phase DC and AC electrical motors.

**TGCEL4 – Circuits and Electrical Controls and Laboratory – 3 Credits**  
**Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**  
**Pre-requisites –TGFEER, TGIEL**

This course provides students with knowledge and skills related to totally automatic control systems, analysis and diagnosis of electric circuit failures, installation of single station and intermittent controls and rotary inverters.

**TGRCE5 - National Electrical Code and Regulations – 3 Credits**  
**Lecture 60 hrs/Outside the Classroom Work 15 hrs**  
**Pre-requisites – None**

It is well-known that working with electricity is an occupation involving danger and risk. On occasion there have been fatal accidents. This profession is regulated with a view to reducing hazards and accidents. This course is designed to acquaint students with the laws that regulate the profession so that they can install electric wiring following the standards in the Puerto Rico Electric Power Authority Regulations, and the National Electrical Code, as the Licensed Electrician assumes full responsibility of wiring installed or certified.

**TGPLC5 - Principles of Combinational Logic – 3 Credits**  
**Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**  
**Pre-requisites –TGFEER, TGIEL, TGCEL**

In this course students become acquainted with mathematical concepts, the different number systems of Boolean algebra. In addition, students study the operation and combinational and sequential circuits used in this technology.

**TGIPL5 – Installation of Electrical Panels, Branch Circuits, Transfer Switches and Laboratory - 3 Credits**  
**Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**  
**Pre-requisites –TGFEER, TGIEL**

This course provides basic knowledge for installation and repair of meter bases, electric panels, and measurement equipment in household and industrial scenarios according to Puerto Rico Electric Power Authority Regulations and the National Electrical Code.

**TGLPE6 - Reading of Schematic Drawings – 3 Credits**  
**Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**  
**Pre-requisites –TGFEER, TGIPL, TGDIT**

This course provides students with the basic knowledge needed for reading and interpreting residential and industrial electricity schematics so that students will be able to gather load information according to the blueprint or schematic specifications.

**TGINS6 – Instrumentation – 3 Credits**  
**Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**  
**Pre-requisites –TGFEER, TGDIT, TGIPL, TGCEL, TGIEL**

The course provides basic knowledge of measuring instruments and their correct use in electrical systems and the installation and repair of electrical and electronic circuits. Emphasis is given to the skills needed to diagnose equipment or systems.

**TGLDL6 - Distribution Lines, Transformers and Laboratory – 3 Credits**  
**Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**  
**Pre-requisites –TGFEER, TGIPL, TGDIT**

Transformers are the most important devices in electricity. Thanks to transformers we can enjoy the benefits of electrical power in our homes and in industry. It is of vital importance that electricians have knowledge of the operation, combinations, and trajectory of distribution lines in power delivery. This knowledge is very important for students who want to serve society as linemen at the Puerto Rico Electric Power Authority (PREPA.) or work at commercial power companies.

**TGCLP7 - Programmable Logic Controllers (PLC) – 3 Credits**  
**Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**  
**Pre-requisites –TGFEL, TGFEER, TGCEL, TGIPL**

In this course students will obtain basic knowledge needed to interpret scale drawings, design and program logic circuits in a PLC. Students will also find failure points and repair programmable controllers.

**TPRIN8 – Practice in the Industry – 6 credits**  
**Practice hours – 120**  
**Pre-requisites – TGFEER, TGIEL, TGSIL, TGFEL, TGMML, TGCEL, TGRCE, TGIPL, TGLPE, TGLDL**

Practice in the industry is an educational process which offers students the opportunity of evaluating if the knowledge and skills acquired are sufficient and adequate to develop in the professional and technical field they have chosen to study. The learning process allows the student to integrate in a practical and effective way the theory and practice of what has been learned in technical and academic classes.

**ASSOCIATE DEGREE IN BIOMEDICAL EQUIPMENT REPAIR**

**TGTBIOT1 – Introduction to Biomedical Technology and Medical Terminology – 3 credits|**  
**Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**  
**Pre-requisites – None**

This course introduces and analyzes medical instrumentation, theory of measurements and basic concepts which will help the student to understand the electro-physiological effects in human beings or in other instruments. The students will also recognize different types of signals as well as relating

with devices used to obtain physiological parameter measurements (electrodes, transducers and sensors). The student will explain and study the most common medical terminology used in the repair of biomedical equipment.

**TGDIT3 – Technical Drawings – 3 credits**

**Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**

**Pre-requisites - None**

The material in this course has been gathered to achieve a more significant training of drawings in the learning area. With its study, the student will relate and develop the skills in the use of graphic industrial language and in the application and construction of geometric figures. This course has 40 hours of laboratory contact.

**TGFISIO3 – Applied Physiology for Biomedical Repair Technicians – 3 credits**

**Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**

**Pre-requisites –TGBIOT**

This course studies the relation between structure and function of the human body; it also discusses cells and tissue as structural units and basic functions. The course introduces the regulation and integration of body functions and systems control in homeostasis. The course studies major systems such as: nervous, vascular, endocrine and skeletal-muscle; it also integrates the use of biomedical instruments for diagnosis and treatment of live beings

**TGCLDI4 – Digital Logic Circuits and Laboratory – 3 credits**

**Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**

**Pre-requisites –TGFUE,TGFDE,AGMAG,AGMAT,AGFIT**

This course studies basic digital circuits, such as : logic compartments, adding circuits, coders, binary meters and time circuits. This course has 40 hours of laboratory contact.

**TGEABIL4 – Advanced Biomedical Electronics and Laboratory – 6 credits**

**Lecture 40 hrs/Laboratory 80 hrs/Outside the Classroom Work 30 hrs**

**Pre-requisites –TGFUE,AGMAG,AGMAT, TGFDE**

This course has been designed for the student to develop the skills and knowledge in advanced electronics for the diagnosis and solution of problems in electronic control modules in different biomedical equipment. This course has 40 hours of laboratory contact.

**TGLIPL5 – Reading and Interpretation of Schematic Drawings – 3 credits**

**Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**

**Pre-requisites –TGDIT**

This course provides the student with the basic knowledge for reading and interpreting residential and industrial electric planes so that the student can make a Charge census according to the plane or sketch specifications. This course has 40 hours laboratory contact.

**TGIMEBI5 – Instrumentation and Biomedical Measurements I**

**3 credits**

**Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**

**Pre-requisites –AGMAG, AGMAT, AGFIT, TGFUE, TGFDE, TGEABIL,  
TGFISIO**

This course offers an introduction to instrumentation and biomedical measuring systems, transducers and electronic amplifiers. It studies bioelectrical signals (ECG, EMG, and EEG),

cardiovascular measurement system, respiratory measurement system, non-invasive blood pressure, defibrillators', pacemaker and clinical instrumentation. This course has 40 hours laboratory contact.

**TGCLSEC5 – Sequential Logic Circuits and Laboratory – 3 credits**  
**Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**  
**Pre-requisites –AGMAG, AGMAT, AGFIT, TGFUE, TGFDE, TGCLDI**

This course has been designed for the student to develop the cognitive knowledge in Sequential Digital Electronics with the purpose of diagnosis and solving problems in modules and electronic control cards used in different units of medical equipment. This course has 40 hours laboratory contact.

**TGIMEBI26 – Instrumentation and Biomedical Measurements II**  
**3 credits**  
**Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**  
**Pre-requisites – AGMAG, AGMAT, AGFIT, TGFUE, TGFDE, TGEABIL, TGFISOL**

This course studies advanced biomedical measurements in respiratory therapy, EEG, ECG, telemetry, surgical, electrosurgery, X-Rays, Fluoroscopy, CT Scan, MRI and nuclear Medicine. This course has 40 hours laboratory contact.

**TGQIN6 – Industrial Chemistry for Health Sciences: Hygiene and Safety –**  
**3 credits**  
**Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**  
**Pre-requisites –TGFUE, TGTBIOT, TGFDE**

This course details industrial safety, specially electrical, as a fundamental aspect where special importance is required for medical equipment. The course develops the student with different types of knowledge referring to standards and regulations related to electrical safety. Different directives that affect electrical safety and currents in live beings are also analyzed. This course also studies specific techniques to design and develop electronic products and studies policies that apply to different products, such as: electrodomestic, medical equipment and industrial equipment.

This course also studies chemistry principles with the purpose of providing the student with basic knowledge in this field.

**TGTING6 – Biomedical Engineering Techniques (Computers in Biomedical Equipment) – 3 credits**  
**Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**  
**Pre-requisites – CGCOM, TGIMEBI**

This course studies basic computers terminology and its use and integration of biomedical equipment. It also describes types of computers, microprocessors and microcomputers used in biomedical instrumentation. In his course, the use of internet will be learned as a reference to health care. This course has 40 hours laboratory contact.

**TGROBO7 – Robotics and Laboratory – 2 credits**  
**Lecture 10 hrs/Laboratory 30 hrs/Outside the Classroom Work 10 hrs**  
**Pre-requisites – AGMAG, AGMAT, AGFIT, TGFUE, TGFDE, TGEABIL**

This course has been designed to prepare the student with the necessary knowledge and skills to comprehend, modify and repair industrial automation machinery (industrial robotics) used in

manufacturing procedures and for increasing production. This course has 40 hours laboratory contact.

**TGCLP7 – Programmable Logic Controllers (PLC) – 4 credits**  
**Lecture 30 hrs/Laboratory 50 hrs/Outside the Classroom Work 20 hrs**  
**Pre-requisites –TGFDE, TGFUE, TGEABIL, AGMAG, AGMAT, AGFIT**

In this course the student will have the basic knowledge for interpreting scaled blueprints, design and program logic circuits on a P.L.C. He/she will also be able to look for failures and repair the programmable control systems. This course has 40 hours of laboratory contact.

**TGARIML7 – Application and Repair of Medical Instruments and Laboratory (Troubleshooting) – 3 credits**  
**Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**  
**Pre-requisites – AGMAG, AGMAT,AGFIT, TGFUE, TGFDE, TGIMEBI**

In this course, the student will relate directly with medical and test equipment used to diagnose failures in medical equipment. It studies different handling options for the maintenance of medical equipment in hospitals, emergency medical services and medical practice. Different types of maintenance and repair organizations (MROs) will work with these problems. This course has 40 hours of laboratory contact.

**TGSEMBI7 – Seminar in Biomedical Applications – 3 credits**  
**Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**  
**Pre-requisites –TGRBIOT, CGCOM**

This course integrates essential competencies to develop as Biomedical Equipment Repair Technician. It also analyzes challenges that confront these technicians in relation to: general practices, ethics and project management.

**TPRIN8 – Clinical Practice (Rotations) – 6 credits**  
**Practice hours – 120**  
**Pre-requisites – TGTBIOT, TGFISIO, TGEABIL, TGIMEBI, TGIMEBI2, TGQIN, TGTING, TGARIML**

This course offers students the opportunity of evaluating if the knowledge and skills acquired are sufficient and adequate to develop in the professional and technical field they have chosen. The learning process allows the student to integrate in a practical and effective way the theory and practice of what has been learned throughout the program.

### **ASSOCIATE DEGREE IN INDUSTRIAL ELECTROMECHANICAL TECHNOLOGY**

**TGIEIN1D – Introduction to Industrial Electromechanics – 3 credits**  
**Lecture 60 hrs/Outside the Classroom Work 15 hrs**  
**Pre-requisites – None**

Electromechanics is a specialized field where knowledge and applications in electricity, electronics and mechanics are applied. The application of concepts in these fields can be observed through domestic, commercial and automotive applications, specially in the industrial field. Through this course the student will learn different concepts of the industrial electromechanics field.

**TGFEER3 – Fundamentals of Electricity with Renewable Energy and Laboratory – 3 Credits**

**Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**  
**Pre-requisites - None**

This course studies the solution of problems in AC/DC circuits and the familiarization of basic electricity concepts, such as: magnetism and electrical energy generation.

**TGDIT3D – Technical Drawings – 3 credits**  
**Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**  
**Pre-requisites – None**

The material in this course has been gathered to achieve a more significant training of drawings in the learning area. With its study, the student will relate and develop the skills in the use of graphic industrial language and in the application and construction of geometric figures. This course has 40 hours of laboratory contact.

**TGMEGEN3D – General Mechanics (Machinery and Tools) – 3 credits**  
**Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**  
**Pre-requisites – TGIEIN, AGMAG, AGMAT, TGFEER**

This course has been designed to prepare the student with the necessary knowledge to understand concepts in the industrial electromechanics field.

**TGMML4D – Maintenance of Electrical Motors and Laboratory – 3 credits**  
**Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**  
**Pre-requisites – TGIEIN, TGFEER**

This course provides the basic knowledge for maintenance and repair of electric motors DC and AC, monophasic and triphasic. This course has 40 hours of laboratory contact.

**TGCEL4D – Circuits and Electrical Controls and Laboratory – 3 credits**  
**Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**  
**Pre-requisites – TGFEER, AGMAG, AGMAT, AGFIT**

This course provides the student the skills and knowledge of automatic control systems, analysis and diagnosis of failures, installation of controls with single stations, intermittent and with rotation. This course has 40 hours of laboratory contact.

**TGPLC5D – Principles of Combinational Logic and Laboratory – 3 credits**  
**Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**  
**Pre-requisites – TGIEIN, TGFEER, AGMAG, AGMAT, AGFIT, TGFEL**

In this course the student relates to the mathematical concepts, in other words, the different algebraic numeric systems. He/she will also study its function, analyze combined circuits and sequences of this technology. This course has 40 hours of laboratory contact.

**TGHNE5D – Hydraulics, Pneumatics and Laboratory – 3 credits**  
**Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**  
**Pre-requisites – TGMEGEN, TGMML, TGFEL, AGFIT, AGMAG, AGMAT, TGFEER**

This course has been designed to recognize pneumatic and hydraulic machines problems and to design pneumatics and hydraulics programs to be able to create a system that will benefit the production in a company. This course has 40 hours of laboratory contact.

**TGIPL5D – Installation of Electrical Panels, Branch Circuits, Transfer Switches and Laboratory – 3 credits**



**Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**  
**Pre-requisites – AGMAT, AGFIT, TGFEER, TGFEL, TGCEL, TGMML**

This course provides the basic knowledge for the installation and repair of base meters, electric panels and measuring equipment for domestic and industrial settings, according to A.E.E. Regulations and the National Electricity Code. This course has 40 hours of laboratory contact.

**TGLPE6D – Reading of Schematics Drawings – 3 credits**  
**Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**  
**Pre-requisites – TGIEIN, TGFEER, TGDIT**

This course provides the student with the basic knowledge for reading and interpreting residential and industrial electrical sketches so that the student can make a Charge census according to the sketch specifications. This course has 40 hours laboratory contact.

**TGINS6D – Instrumentation – 3 credits**  
**Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**  
**Pre-requisites – TGIEIN, TGFEER, TGDIT**

This course provides basic knowledge regarding the correct use of measuring instruments in electrical systems for the installation and repair of electrical and electronic circuits. The course also emphasizes the necessary skills for equipment and systems diagnosis.

**TGRACL6D – Refrigeration and Air Conditioning System and Laboratory – 3 credits****Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**  
**Pre-requisites – TGIEIN, TGFEER, TGDIT**

In this course, the student will develop cognitive knowledge in industrial refrigeration systems. The student will diagnose and solve basic problems in an industrial refrigeration unit. This course has 40 hours of laboratory contact.

**TGCLP7D – Programmable Logic Controllers (PLC) – 3 credits**  
**Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**  
**Pre-requisites – TGIEIN, TGFEER, TGDIT, TGINS, TGFEL**

In this course, the student will learn the basic knowledge for interpreting scaled blueprints, design and program logic circuits on a P.L.C. He/ she will also be able to look for failures and repair the programmable control systems. This course has 40 hours of laboratory contact.

**CGSOB7D – Welding, Metallurgy and Laboratory – 3 credits**  
**Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**  
**Pre-requisites – TGIEIN, TGFEER**

The purpose of the Industrial is to train young adults and adults of both genders with the necessary knowledge and skills to be able to weld. During the teaching-learning process, the student will have the opportunity to know and handle electric arc welding machines, oxyacetylene equipment and specialized welding. He/she will identify and use the tools and necessary equipment to execute the process as well as knowing and applying the safety measures necessary and important to every welder. This course has 40 hours laboratory contact.

**TGIROB7D – Robotics and Laboratory – 3 credits**  
**Lecture 20 hrs/Laboratory 40 hrs/Outside the Classroom Work 15 hrs**  
**Pre-requisites – TGIEIN, TGFEER, TGDIT, TGINS, TGFEL**

This course has been designed to prepare the student with the necessary knowledge and skills to comprehend, modify and repair industrial automation machinery (industrial robotics) used in



manufacturing procedures and for increasing production. This course has 40 hours laboratory contact.

**TPRIN8 – Practice in the Industry – 6 credits**

**Practice hours – 120**

**Pre-requisites – TGIEIN, TGFEER, TGMEGEN, TGFEL, TGMML, TGCLP, TGIROB, TGPLC, TGIPL, TGCEL**

Practice in the industry is an educational process which offers students the opportunity of evaluating if the knowledge and skills acquired are sufficient and adequate to develop in the professional and technical field they have chosen to study. The learning process allows the student to integrate in a practical and effective way the theory and practice of what has been learned in technical and academic classes.

**ASSOCIATE DEGREES – GENERAL COURSES**

**AGEBI1 - Basic Spanish I – 3 Credits**

The Spanish 101 course is one of the general education courses offered at Mech Tech in Caguas, Puerto Rico. In this course students will have the opportunity to develop basic skills needed in effective interpersonal communication.

**AGEBI2 - Basic Spanish II – 3 Credits**

**Lecture 60 hrs**

**Pre-requisites –AGEBI**

This course is designed as a continuation of Spanish 101 and like the previous course, it is a requirement for all students of almost all of programs at the institution. Content differs from the prerequisite course that emphasizes grammar and practical use of language. Spanish 102 focuses on studying the principal literary genres (poetry, stories, essays and theater) and studying the creative process of these literary works.

**AGIBI3 – Basic English I – 3 credits**

**Lecture 60 hrs**

Basic English 101 is designed to provide students with intensive oral and written practices using selected ESL structures. Its goal is to help students learn to use the language in grammatical structures and reinforce oral and written communication skills related to the technical vocabulary and of shop vocational trades.

**AGIBI3 – Basic English II – 3 credits**

**Lecture 60 hrs**

Basic English 102 is an extension of English 101. Its purpose is to provide additional oral and written practices using using ESL structures to improve communication skills. A technical to improve communication skills. A technical component will able students to read and analyze technical texts. This course will also provide practice in producing business letters, reports, memos, forms, and checks.

**AGMAG1 - General Mathematics – 3 Credits**

**Lecture 60 hrs**

This course provides basic knowledge so that students can reinforce fundamental mathematical concepts, reasoning skills, problem solving, and numeric awareness. The course addresses the need to strengthen mathematical knowledge and skills required for successful performance in the workplace and in other courses of study.

**AGMAT2 - Technical Mathematics – 3 Credits****Lecture 60 hrs****Pre-requisites –AGMAGI**

The course focuses on developing students' ability to reason, solve problems, and apply knowledge to technical processes. The course provides a basis for working with trigonometry and analytical geometry, which by their nature are applicable to many areas of knowledge. Students will apply the necessary theory and basic tools needed to successfully solve most of the problems he or she will face in a technical career.

**AGSCMI1 – Systems and Concepts for Shop Measurements I – 3 credits****Lecture 60 hrs****Pre-requisites**

This course provides opportunities for the student to develop, clarify, and reinforce general mathematical concepts such as mathematical skills, reasoning abilities, problem solving, and numerical sensibility. The course responds to the need of strengthening the basic knowledge and mathematical skills required in all areas of study, the workforce, and daily life. The topics presented are: numerical groups, arithmetic operations, measuring systems, numerical relations and basic mathematical concepts to recognize, understand, interpret, and analyze algebra as a universal communication language.

**AGSCMI2 – Systems and Concepts for Shop Measurements II – 3 credits****Lecture 60 hrs****Pre-requisites – AGSCMI**

This course was designed to develop in the student geometrical principles with application to concentration courses in Technology in Mechanical Engineering. The purpose is to show students the applications of different mathematical concepts applied in instruments, tools, and equipment according to the topics discussed. In addition, the student will become familiarized with them thus preparing them for the concentration courses.

**CGSEG1 - Industrial Safety – 3 Credits****Lecture 60 hrs**

Until recently industrial society focused on machines, time and motion, in the pursuit of greater profit. Today the objective of safety is to achieve well-being through the efforts of all that are involved, since human beings continue to be the center of industrial processes. If human beings are affected, the impact on production is greater than if a machine is out of order. Safety is the keystone to our lives and must be present in all of our activities. Although this course focuses more on industrial safety, students will obtain the basic knowledge all workers need to prevent accidents and maintain a safe environment in the workplace.

**AGFIT3 - Technical Physics – 3 Credits****Lecture 60 hrs****Pre-requisites –AGMAG**

This course presents the basic concepts and the principles of physics which will be the basis for the further study of Science and Technology. These concepts are developed clearly and logically along with their application in daily life.

**AGCHU5 - Interpersonal Relations – 3 Credits**

**Lecture 60 hrs**

The course explores the dimensions of human behavior and interpersonal relationships in the decision-making process. Leadership dynamics and group behavior are analyzed in discussions of case studies. Labor and administrative relations in the production process are examined.

**AGHUI6 - Humanities I – 3 Credits**

**Lecture 60 hrs**

This course studies the development of the occidental civilization from its first inhabitants to the Classic Roman civilization and Islamic expansions. It also emphasizes the development of occidental culture which will develop an appreciation of origins and importance of this culture in students. The student will develop a creative project that reflects the sensibility and appreciation in any area of Humanities.

**AGHUII7 - Humanities II – 3 Credits**

**Lecture 60 hrs**

**Pre-requisites –AGHU16**

This course traces the development of the occidental medieval civilization up to our present time. It studies the development of occidental culture and will create on students an appreciation of the origins and importance of their culture. It is expected that the student develops creative work that reflects his/her sensibility and appreciation in any area of the Humanities.

**CGAGN7 - Business Ethics and Administration – 3 Credits**

**Lecture 60 hrs**

The course presents students with the situations that are inherent to the administration and management of a business, and the role of business in the economy. A detailed discussion is provided of management processes and the four functions of management: planning, control, behavioral processes, and decision-making, emphasizing supervisory processes. Basic budgeting and accounting principles, time management and inventory are studied. Emphasis will be made on business development and establishing a business.

**CGCOM2 – Computer Principles – 3 Credits**

**Lecture 60 hrs**

In this course, the introduction to computers will be focused in different topics which go from the history of computers evolution, its parts, and the Internet. In addition, it will teach students to work with different Microsoft Office® programs which will provide them the capacity to use documents, tables, graphics, presentations, letters; among others.

**TGFEL6 - Electronics Fundamentals and Laboratory – 3 Credits**

**Lecture 60 hrs**

**Pre-requisites –AGMAG, TGFUE**

In the past, electricity and electronics were seen as two separate fields; today, modern technology has brought them closer. A modern day electrician is not fully trained without the knowledge of basic electronics and cannot compete for a position in modern industry. Job offerings specify that is needed is an electrician with a knowledge of electronics. This course and continuation courses provides the basic knowledge students will need to compete in modern industry, especially in the pharmaceutical industry.

**TGFUE5 – Fundamentals of Electricity – 3 credits**  
**Lecture 60 hrs**

This course includes three units: Knowing Electricity, Analysis of DC Electrical Circuits, and Medical Instruments. In the first unit, Knowing Electricity, important historical data is offered the basic principles of electrical theory are discussed as well as methods of producing electrical energy. It also includes the effects of electricity and its fundamental elements.

In the second unit, Analysis of DC Electrical Circuits, Ohm's Law, the term "circuit" as well as information related to the components of a circuit, continuity, serie/parallel and combined; Watt's Law. In the third unit, Measuring Instruments, includes the fundamental aspects related to the identification and function of measuring instruments as well as the study of the measures unit, connection and reading of instruments.

**CGRIT7D - Writing of Technical Reports – 3 Credits**  
**Lecture 60 hrs**

This course explores the application, preparation, and understanding of the different reports that are used as communication, information, and record-keeping tools for simple or complex equipment or systems in modern industry.

**CGSOB6 – Welding and Laboratory – 3 Credits**  
**Lecture 20 hrs/ Laboratory 40 hrs**

During the learning process students will have an opportunity to acquire knowledge and work with electric arc, oxyacetylene, and specialized welding equipment. Students will also identify and use the tools and equipment needed to carry out this process. In addition, students will learn and apply safety rules that are very necessary and important for all welders.

**TPRIN8 – Practice in the Industry - 6 Credits**  
**Practice hours – 120**

Practice in the industry is an educational process that provides teachers and students with the opportunity of evaluating whether the student has the necessary knowledge and skills to work in the professional and technical field which he or she is studying. This learning process allows students to effectively integrate theory and practice, not only in technical areas but also in terms of academic subjects. In this course, human relations, communication, and the student's commitment in the learning process will also be evaluated.

#### **6.4.2 TECHNICAL PROGRAMS**

**GENERAL COURSES**

**AMATE4 – Applied Mathematics – 2 Credits**  
**Lecture 40 hrs**

The course focuses on developing students' ability to think, solve problems and communicate ideas. A variety of activities or problems will be provided during the course for the student to carry out or solve as a team. The teacher will encourage student participation as a team, general discussions, using calculators, as well as innovative ideas that may be produced in these activities. The course provides the basis for working with trigonometry and geometry. By their nature, trigonometry and analytic geometry are applicable to many areas of knowledge. Students will find the basic tools and theory tools needed to successfully solve most of the problems they will face in a technical career.

**ATMAT1 – Applied Mathematics – 3 Credits**  
**Lecture 60 hrs**

This course serves as a base for trigonometry and geometry work. By nature, analytical trigonometry and geometry have multiple applications in different areas of knowledge. The student will apply measuring skills and problem solving to build and repair parts and different objectives in the workshop.

**AMEFO1 – Measurements and Formulas – 2 Credits**  
**Lecture 40 hrs**

This course prepares the student to develop problem-solving skills; trust in their own mathematical thinking; learn to communicate mathematically; learn mathematical reasoning; perform connections between different types of mathematics and other disciplines; learn the value of mathematics in our society and its relation with people; and use technology and decide when its use is adequate. Students will work in teams and establish general discussions; will use calculators and create innovative ideas. The course provides the basis for working with trigonometry and geometry. By their nature, trigonometry and analytic geometry are applicable to many areas of knowledge. Students will find the basic tools and theory tools needed to successfully solve most of the problems they will face in a technical career.

**AINGL1 – Technical English – 2 Credits**  
**Lecture 40 hrs**

This course has been designed to provide students with a basic knowledge of the English language using technical terms and vocabulary. The course provides students with the opportunity of learning the basic parts of speech and technical vocabulary, with which to form full sentences and learn to communicate in their field of study.

**CICOM2 – Introduction to Computers – 3 Credits**  
**Lecture 60 hrs**

This course provides students with a basic knowledge of computers and their components. Students will be able to perform simple tasks using different computer software.

**CTCOM1 – Computing Principles – 3 Credits**  
**Lecture 60 hrs**

This course focuses in different topics that range from the evolutionary history of computers, its parts, and the creation of the Internet. The student will be trained in the use of Microsoft Office ® applications for creating documents, spreadsheets, graphics, and presentations; among others. CAD programs will be introduced for creating figures or designs in computer so that the student acquires basic knowledge in different programs that he/she can use to create designs in other courses.

**CCOST5 – Costs and Estimates – 1 Credit****Lecture 20 hrs**

This course is designed to prepare and develop students with regard to two technical aspects, and their application and maintenance, and secondly with regard to human relationships between service providers and their clients. Also, the student will be able to establish the difference between the manufacturer's warranty and the service provider's guarantee of equipment as well as the benefits clients may obtain from an appropriate maintenance contract and the benefits for the organization.

**AREHU5 –Human Relations – 1 Credit****Lecture 20 hrs**

This course explores the dimensions of human behavior and interpersonal relations in the decision-making process. Leadership dynamics and group behavior are analyzed in discussions of case studies. Labor and administrative relations in the production process are examined.

**CSEGU4 –Industrial Safety– 1 Credit****Lecture 20 hrs**

This course provides the basic knowledge that will enable students to describe industrial safety systems, to analyze occupational accidents according to their cause, and how they may be prevented.

**CSEGI1 – Industrial Safety – 2 Credits****Lecture 40 hrs**

This course provides students with basic knowledge to describe security systems in the welding industry, analyze on-the-job accidents according to their causes, and how to avoid them. In addition, it includes vital information regarding the chemical composition of safety bottles, tools, and other security aspects of the job.

**CSEGE2 – Industrial Safety – 3 Credits****Lecture 60 hrs**

This course provides basic knowledge so that the student can describe safety systems in the industry, analyze on-the-job accidents according to its causes and how they can be avoided.

**TLEXO\_ – Occupational Experience Laboratory – (the number of credits and last character of the code for this course may vary depending on the program of study)****Practice hours 120**

The purpose of this course is that students perform their practice phase either in the school (internship) or outside (externship). The internship provides a valuable real-world opportunity for students to have hands-on, practical experience in preparation for their future performance in the field. In addition, they will put in practice the abilities and knowledge related and acquired through their training and have the opportunity to reinforce skills. During the external practice, the student will relate to a real-life working environment where he/she can observe the development of different customer projects while still being part of the training being completed as part of his/her program of study.

**CSOLDL2 – Welding and Laboratory – 3 Credits****Lecture 20 hrs/Laboratory 40 hrs**

The purpose of the Industrial Welding course is to provide young men and women with the knowledge and skills needed to perform welding. During the teaching and learning process students will have the opportunity to become acquainted with and handle electric arc, oxyacetylene, and specialized welding equipment. Student will also identify and use other tools and equipment needed for this process as well as becoming acquainted with and applying safety rules.

**TFDEL3 – Fundamentals of Electronics – 2 Credits****Lecture 40 hrs**

This course includes a discussion of semiconductors such as diodes, transistors, and operational amplifiers; among others.

**TFUEL3 – Fundamentals of Electricity – 3 Credits****Lecture 60 hrs**

This course provides students with a basic knowledge of electricity. Includes atomic theory, analysis of direct and alternate current circuits, using fundamental concepts of mathematics and physics. Laws that regulate the electrician's profession are also discussed.

**ADVANCED AUTOMOTIVE TECHNOLOGY****Automotive Mechanics (48 credits) only at Mech-Tech Institute****TELEL1 – Electricity and Electronics Fundamentals – 3 credits****Lecture 60 hrs**

This course is an introduction to electricity and electronics principles in addition to the laws that apply as well as the construction and function of electrical and electronic components.

**TIMAU1 – Introduction to Automotive Mechanics – 3 credits****Lecture 60 hrs**

This course is an introduction to the basic fundamentals of automotive technology. It includes information regarding the construction, operation, tools, certifications, service information and vehicle maintenance.

**TMCIA1 – Internal Combustion Engine of the Automobile and Laboratory –  
3 credits (At Mech-Tech Institute, 5 credits)****Lecture 20 hrs/Laboratory 40 hrs**

This course details the construction and operation of modern vehicles. The student will learn the names and location of the parts of an engine and its variations in design.

**TINY12 – Injection System of the Automobile I and Laboratory – 3 credits****Lecture 20 hrs/Laboratory 40 hrs**

This course provides the necessary information to repair emission control systems. The most common performance problems will be described; its causes will be explained as well as how to correct them. The course also explains how to use advanced diagnosis tools to find problems in related systems.

**TREMO2 – Engine Repair and Laboratory – 3 credits****Pre-requisites – TMCIA1****Lecture 20 hrs/Laboratory 40 hrs**

This course prepares the student with the necessary skills to diagnose and repair engines through the description of repair problems and procedures. It will also provide vast knowledge regarding internal and external functions of an engine and everything related to its repair.

**TTDAL2 – Front End Steering and Wheel Alignment and Laboratory –  
3 credits**

**Lecture 20 hrs/Laboratory 40 hrs**

This course provides the student with the knowledge and skills required for the operation, construction, service and repair of suspension and direction systems.

**TSINY23 – Injection System of the Automobile II and Laboratory – 3 credits  
Pre-requisites – TSINY12**

**Lecture 20 hrs/Laboratory 40 hrs**

This course introduces the operational principles of different fuel injection systems. Although variation in systems exists, its components are basically the same. This includes sensors, actuators and modules.

**TSEEA13 – Electrical and Electronic System of the Automobile I and  
Laboratory – 3 credits (At Mech-Tech Institute, 6 credits)**

**Pre-requisites – TELEL1**

**Lecture 20 hrs/Laboratory 40 hrs**

This course studies the function, behavior and application of electricity in the automobile. Electrical and electronic diagnosis tests will be performed in the vehicle and the battery, starter system and alternators terminology will be discussed.

**TFABS3 – Brakes System and ABS (TCS) of the Automobile and Laboratory –  
3 credits (At Mech-Tech Institute, 5 credits)**

**Lecture 20 hrs/Laboratory 40 hrs**

This course details the operation, construction, service and repair of brakes systems from conventional to modern antilock.

**TATEC4 – Technological Advances in Automotive Mechanics – 3 credits  
(Industry – Training Centers)|**

**Pre-requisites – TIMAU1**

**Lecture 20 hrs/Laboratory 40 hrs**

This course presents the student the latest technological advances in the automotive industry which will be presented by the training centers and their instructors and will expose the students to such advances.

**TSACAL4 – Air Conditioning System of the Automobile and Laboratory – 3 credits  
Lecture 20 hrs/Laboratory 40 hrs (At Mech-Tech Institute, 4 credits)**

This course explains the operation, service and repair of air conditioning systems in a vehicle including laboratories to develop diagnosis and repair skills. The repair methods to be used are explained in detail without harming the environment.

**TSEEA24 – Electrical and Electronic System of the Automobile II and Laboratory –  
4 credits**

**Pre-requisites – TSEEA13**

**Lecture 20 hrs/Laboratory 60 hrs**



This course studies the function, behavior and application of electricity in the automobile. Electrical and electronic tests will be performed in the vehicle and also the following topics will be discussed: ignition system, lighting system, instruments, speakers and wipers.

**TSTFAL5 – Power Transmission System of the Automobile and Laboratory –  
4 credits (At Mech-Tech Institute, 6 credits)  
Lecture 20 hrs/Laboratory 60 hrs**

One of the most important systems in a vehicle is the powertrain which is composed of the transmission, transfer case and differential. This system performs through a series of gears configurations and through computerized hydraulic and electronic components. In this course, the students will discuss all of these systems and their functions and will learn to diagnose and repair them and its components.

**TSCOAL1 – Fuel System of the Automobile and Laboratory  
(only at Mech-Tech Institute)  
3 credits  
Lecture 20 hours/Laboratory 40 hours**

This course covers everything related to the management of fuel in the modern automobile. Includes the service, operation, and performance of the injection system currently used. Describes the parts and procedures. In addition, students will understand the injection systems and its benefits through laboratories, and they will become familiarized with diagnostic and repair procedures.

**TSCGEL3 – Gas Emission and Control System of the Automobile and Laboratory  
(only at Mech-Tech Institute)  
3 credits  
Lecture 20 hours/Laboratory 40 hours**

This course provides the necessary information for the repair of control of emissions systems. Includes fundamental terms in relation to automotive pollutants, as well as the fundamentals and operation of different systems.

**TSEJA4 – Computerized Injection System of European, Japanese, and  
American Automobiles and Laboratory  
(only at Mech-Tech Institute)  
6 credits  
Lecture 40 hours/Laboratory 80 hours**

This course provides introduction to operational principles of the different fuel injection systems. Although systems vary, their components are basically the same. It includes sensors, actuators, and modules.

**DIESEL TECHNOLOGY AND ADVANCED SYSTEMS**

**TIMDI1 – Introduction to Diesel Mechanics – 3 Credits  
Lecture 20 hrs/Laboratory 40 hrs**

This course provides students with knowledge and awareness of the different agencies, laws, regulations, and safety standards in the field of diesel mechanics. A thorough knowledge of automobiles, the function of the agencies, and the purpose of the laws, regulations, and the safety standards will be acquired.

**TCID11 –Internal Diesel Combustion Engines I and Laboratory – 6 Credits  
Lecture 40 hrs/Laboratory 80 hrs**

This course prepares students to repair American, European, and Japanese automotive engines. The course requires a mastery of basic knowledge and skills to repair the various components of the engine. Eventually students will be able to specialize in repairing internal combustion engines.

**TCID22 – Internal Diesel Combustion Engines II and Laboratory – 5 Credits**

**Pre-requisites – TCIDII**

**Lecture 35 hrs/Laboratory 65 hrs**

This course provides broad knowledge on the internal and external aspects of diesel engine operation and repairs. The course also will discuss different diagnostic technologies used in internal combustion diesel engine repairs.

**TELDI2 – Diesel Cooling and Lubrication Systems and Laboratory – 3 Credits**

**Pre-requisites –TCIDII**

**Lecture 20 hrs/Laboratory 40 hrs**

This course prepares students to repair and diagnose the different kinds of lubrication and cooling systems in diesel equipment. Mastery of basic knowledge and skills related to these systems is required. Eventually students will be able to specialize in repairing these systems.

**TSEDI3 –Diesel Electrical and Electronic Systems and Laboratory – 3 Credits**

**Pre-requisites –TFDEL2**

**Lecture 20 hrs/Laboratory 40 hrs**

This course enables students to repair the various kinds of systems in American, European, and Japanese automobiles. Students must master basic knowledge and skills related to the different electronic systems in vehicles. Students may eventually be able to specialize in automotive electronics.

**TSACD3 – Diesel Air Conditioning System and Laboratory – 3 Credits**

**Lecture 20 hrs/Laboratory 40 hrs**

In this course students will learn to work with diesel automotive air conditioning systems: disassembling and assembling reciprocal compressors, rotary compressors, and clutches; replacing control mechanisms, the heating system, electric air conditioning circuits, soldering air conditioning components with aluminum and silver, using pressure gauges with R-12 and R-134a and air leakage detectors; among others.

**TTFDI5 – Diesel Power Transmission and Laboratory – 4 Credits**

**Lecture 30 hrs/Laboratory 50 hrs**

This course prepares students to repair power transmission systems in American, European, and Japanese automobiles. Requires a mastery of basic knowledge and skills for repairing components of the transmission system. Eventually students may be able to specialize in the field of transmissions.

**TSRFD3 – Diesel Brake Systems and Laboratory – 3 Credits**

**Lecture 20 hrs/Laboratory 40 hrs**

This course prepares students to repair American, European, and Japanese automobile brake systems. Requires a mastery of basic knowledge and skills for repairing components of conventional and ABS brake systems of vehicles. Eventually students may be able to specialize in automobile brake systems.

**TSHIN4 – Diesel Hydraulic and Pneumatic Systems and Laboratory – 3 Credits**  
**Lecture 20 hrs/Laboratory 40 hrs**

This course has been designed to provide students with theoretical knowledge and laboratory work with hydraulics and pneumatics applied to real-life situations. The combination of theory and laboratory practice will prepare students to perform different tasks with precision and safety.

**TSIEDL4 – Diesel Injection System and Laboratory – 6 Credits**  
**Pre-requisites –TCID22**  
**Lecture 40 hrs/Laboratory 80 hrs**

This course prepares students to repair different injection systems such as Bosch, GM, Cummins, Robert Bosch, Caterpillar, and others. Requires a mastery of basic knowledge and skills for repairing components of the systems. Eventually students may be able to specialize in injection systems.

**TECHNOLOGY IN INDUSTRIAL ELECTRICITY WITH PLC AND RENEWABLE ENERGY**  
**and TECHNOLOGY IN INDUSTRIAL ELECTRICITY (MTI)****TFEER1 – Fundamentals of Electricity and Renewable Energy – 3 Credits**  
**Lecture 60 hrs**

This course provides students with a basic knowledge of electricity. Includes atomic theory, analysis of direct and alternate current circuits, using fundamental concepts of mathematics and physics. Laws that regulate the electrician's profession are also discussed.

**TLIPD1 – Reading and Interpreting of Electrical Blueprints – 4 Credits**  
**Lecture 20 hrs/Laboratory 60 hrs**

This course provides students with basic knowledge for reading and interpreting residential and industrial electrical drawings and those students may determine the load according to the specifications of the drawing or schematics.

**TSIES2 – Underground Electrical Installations Service – 3 Credits**  
**Pre-requisites –TFEER**  
**Lecture 20 hrs/Laboratory 40 hrs**

This course describes the construction standards of the Puerto Rico Electric Power Authority for buried lines. Specifications, schematics, and drawings for distribution system design are also included.

MTI - This course describes the construction rules for the underground distribution of the local Electrical Power Authority. It also includes specifications, diagrams, and drawings of the distribution system designs.

**TIELR2 – Residential Electrical Conduit Installations and Laboratory – 5 Credits**  
**Pre-requisites –TFEER**  
**Lecture 40 hrs/Laboratory 60 hrs**

This course prepares students to carry out embedded and exposed electrical residential installations, to diagnose electrical failures and repair them according to the National Electrical Code and Puerto Rico Electric Power Authority Regulations.

MTI - This course prepares the student to perform exposed and embedded domestic installations, diagnose electrical failures and repair them according to the National Electricity Code Power Authority Regulations.

**TPCIL3 – Electrical Panels, Branch Circuits, Transfer Switches and Laboratory –  
5 Credits  
Pre-requisites –TFEER  
Lecture 40 hrs/Laboratory 60 hrs**

This course provides basic knowledge for installation and repair of meter bases, electric panels, and household and industrial electrical panels. Students also have the opportunity to connect branch circuits from distribution panels.

**TTLAE3 – Transformers, Aerial Lines and Laboratory – 3 Credits  
Pre-requisites –TFEER  
Lecture 20 hrs/Laboratory 40 hrs**

Transformers are the most important devices in electricity. Thanks to transformers we can enjoy the benefits of electrical power in our homes and in industry. It is of vital importance that electricians have knowledge of the operation, combinations, and trajectory of distribution lines in power delivery. This knowledge is very important for students who want to serve society as linemen at the Puerto Rico Electric Power Authority (PREPA.) or work at commercial power companies.

MTI - The transformer is the most important device in the electricity field. This course teaches the students how it works, combinations and path that distribution lines follow until delivering electrical energy.

**TCCELL4 – Electrical Circuits and Controls and Laboratory – 3 Credits  
Pre-requisites –TFEER  
Lecture 20 hrs/Laboratory 40 hrs**

This course provides students with basic knowledge on installing industrial machines using magnetic controls with various combinations of two and three buttons.

**TRMME4 – Repair and Maintenance of Electric Motors and Laboratory –  
3 Credits  
Pre-requisites –TFEER  
Lecture 20 hrs/Laboratory 40 hrs**

The course provides basic knowledge of maintenance and repair of single and three phase DC and AC electrical motors.

**TILEL4 – Electrical Illumination and Laboratory – 4 Credits  
Pre-requisites –TFEER  
Lecture 40 hrs/Laboratory 40 hrs**

This course recognizes the importance of luminaries in the field of electricity and discusses the elements and components of modern luminaries. Covers measurement for proper operation of the system.

**TRCEN4 –National Electrical Code and Regulations – 2 Credits  
Lecture 40 hrs**

This course is designed to acquaint students with the laws that regulate the profession so that they can install electric wiring following the standards in the Puerto Rico Electric Power Authority Regulations. And the National Electrical Code, as the Licensed Electrician assumes full responsibility of wiring installed or certified.

MTI - This course studies the National Electrical Code, the laws that regulate the profession, and other applicable laws in the industry.

**TCPLC5 –Programmable Logic Controllers (PLC) and Laboratory – 4 Credits**  
**Lecture 20 hrs/Laboratory 60 hrs**

This course includes an introduction to the theory of PLCs and discusses its components. There is also practice with programming and hardware.

**TGPOT – Power Generators – 2 Credits**  
**Pre-requisites –TFEER**  
**Lecture 20 hrs/Laboratory 20 hrs**

This course provides basic knowledge on preventive maintenance and safe and correct installation of emergency generators according to Public Law 83, which regulates the installation of electrical power plants in Puerto Rico.

MTI - This course provides basic knowledge regarding preventive maintenance and installation of an emergency generator in a safe and correct manner according to the regulations of power generators installation.

**TSDCD – Direct Current Systems – 3 Credits (only for PLC and Renewable Energy)**  
**Pre-requisites –TFEER**  
**Lecture 20 hrs/Laboratory 40 hrs**

This course prepares the student for modern systems as well as wiring and diagnosis in networks for communication and for safety and lighting. The student will learn about DC energy sources as well as sensors, actuators, and controllers.

**TEREND – Renewable Energy – 4 Credits (only for PLC and Renewable Energy)**  
**Pre-requisites –TFEER**  
**Lecture 30 hrs/Laboratory 50 hrs**

This course has been designed for the student to comprehend the importance of the use of renewable energy as an alternative to the use of fossil fuels. The student will be provided with the necessary information to identify the best source of renewable energy according to the need and availability of the resource in that area. The student will also be provided with the necessary skills to install and/or repair these sources of alternate power.

**TECHNOLOGY IN REFRIGERATION AND AIR CONDITIONING**

**TFDAC1 – Fundamentals of Refrigeration and Air Conditioning – 3 Credits**  
**Lecture 60 hrs**

This course has been designed to have students develop knowledge of refrigeration systems in general. As an introductory course it is the basis for other courses in the program. In addition, the course will acquaint students with the terminology, laws and regulations related to the regulation of the profession.

**TFMRA2 – Mechanical Fundamentals of Refrigeration and Air Conditioning –**  
**3 credits**  
**Pre-requisites –TFDAC1**  
**Lecture 20 hrs/Laboratory 40 hrs**

This course is designed to provide necessary training to develop students' knowledge of the operation and maintenance of the different kinds and classes of compressors and their use in industry. Students will become acquainted with different instruments and processes of recovery, reuse and recycling of the different kinds of refrigerants.

**TRACDL 2 – Residential Refrigeration and Air Conditioning and Laboratory – 4 Credits**  
**Lecture 30 hrs/Laboratory 50 hrs**

This course is designed to have students acquire knowledge and skills of the operation, installation, and repair of household refrigerators and air conditioners. The course will provide additional necessary knowledge of electrical circuits and assembly equipment. Reading of electrical drawings for the equipment will also be covered.

**TISRA5 – Introduction to Complex Refrigeration and Air Conditioning Systems – 2 Credits**  
**Lecture 40 hrs**

Industrial refrigeration mechanics install, provide maintenance, and repair industrial and commercial refrigeration systems, assemble and disassemble parts using industrial and commercial tools, assemble and disassemble parts using hand tools, cut and join pipes/lines, and isolate cabinets. To work effectively, the industrial mechanic must have knowledge of the basic principles of electrical circuits and the specific procedures and techniques of this occupation. In addition, the industrial mechanic prepares, modifies, and interprets drawings, and assembles refrigeration systems according to specifications.

**TRACCL3 – Commercial Refrigeration and Air Conditioning and Laboratory –**  
**4 Credits**  
**Pre-requisites –TRACDL2**  
**Lecture 30 hrs/Laboratory 50 hrs**

This course is designed to have students acquire knowledge and skills related to the operation, installation and repair of commercial refrigerators and air conditioners. The course will provide additional necessary knowledge of electrical circuits and assembly equipment. Reading of electrical drawings and graphic material for installing refrigerators will also be covered.

**TACIN4 – Industrial Refrigeration and Air Conditioning and Laboratory –**  
**5 credits**  
**Pre-requisites –TRACDL2, TRACCL3**  
**Lecture 40 hrs/Laboratory 60 hrs**

By completing this course, students will have the necessary knowledge and skills to distinguish between a commercial unit and a major refrigeration system. Students will have knowledge of the different methods of industrial maintenance of complex systems, as well as the controls and accessories for mechanical operation. In addition, students will be able to evaluate heat loads in major systems.

**TCCEL3 – Electrical Circuits and Controls and Laboratory – 5 Credits**  
**Lecture 40 hrs/Laboratory 60 hrs**

This course is designed to have students acquire knowledge and skills in the installation and troubleshooting of problems with the electrical controls used in refrigeration systems. Students will also be able to calculate the time, size, and capacity of control devices used to effectively energize refrigeration units.

**TCPLC4 –Programmable Logic Controllers (PLC) and Laboratory – 3 Credits**  
**Lecture 20 hrs/Laboratory 40 hrs**

This course includes an introduction to the theory of PLCs and discusses its components. There is also practice with programming and hardware.

**TSACOL5 –Air Conditioning System of the Automobile and Laboratory – 4 Credits**  
**Lecture 30 hrs/Laboratory 50 hrs**

In this course students will learn to work with automotive air conditioning systems: disassembling and assembling reciprocal compressors, rotary compressors, and clutches; replacing control mechanisms, the heating system, electric air conditioning circuits, soldering air conditioning components with aluminum and silver, using pressure gauges with R-12 and R-134a and air leakage detectors; among others.

**TECHNOLOGY IN INDUSTRIAL WELDING**

**TISOL1 – Introduction to Welding – 2 Credits**  
**Lecture 40 hrs**

The purpose of this course is to provide youth and adults of both genders with the knowledge and skills needed for welding.

**TSPPL1 – Flat Position Welding and Laboratory – 4 Credits**  
**Lecture 30 hrs/Laboratory 50 hrs**

This course provides students with the opportunity to become acquainted with and handle arc welding equipment. In addition, the course identifies and uses tools and equipment needed in this process. Students will also acquire knowledge of and apply safety rules. During the process, students will become acquainted with the kinds of joints and electrode movement in welding.

**TPUSL1 – Preparation of Welding Joints and Laboratory – 2 Credits**  
**Pre-requisites –TSPPL1**  
**Lecture 20 hrs/Laboratory 20 hrs**

This course provides student with the opportunity of acquiring knowledge and safely applying different practices in the laboratory. In addition, students will learn discipline and technique to weld the different joints that they will find in the employment market.

**TDIPS2 – Drawing & Interpretation of Welding Blueprints and Symbols – 4 Credits**  
**Lecture 30 hrs/Laboratory 50 hrs**

This course is an introduction to the basic principles of the technology of drawings and interpretation of welding drawings and symbols. The course includes the purposes, differences, and other aspects. In addition, students will identify basic components.

**TSPHL2 – Horizontal Position Welding and Laboratory – 4 Credits**  
**Lecture 30 hrs/Laboratory 50 hrs**  
**Pre-requisite TSPPL1**

This course provides students with an introduction to the fundamentals and procedures at an intermediate level of welding. In the process, students will acquire the knowledge needed to execute good quality welding and compete in the job market.

**TSPVL2 – Vertical Position Welding and Laboratory – 4 Credits**  
**Pre-requisites –TSPPL1**  
**Lecture 30 hrs/Laboratory 50 hrs**

This course provides students with an introduction to the fundamentals and procedures at an intermediate level of welding. During the process, students will acquire the knowledge needed to execute high quality welding and compete in the employment market.

**TSSCL3 – Over the Head Welding and Laboratory – 4 Credits**

**Pre-requisites – TSPPL1, TSPHL2, TSPVL2**

**Lecture 30 hrs/Laboratory 50 hrs**

This course provides students with an introduction to the fundamentals and procedures at an advanced level of welding where previously learned skills and procedures will be applied. In addition, students will be able to combine techniques they have learned to weld joints in an overhead position.

**TSESL3 – Specialized Welding and Laboratory – 5 Credits**

**Pre-requisites – TSPPL1, TSPHL2, TSPVL2**

**Lecture 35 hrs/Laboratory 65 hrs**

This course introduces students to the fundamentals and procedures of advanced welding. During the course, high quality welding will be performed using different techniques and materials.

**TPCMB3 – Cutting Processes, Metal Base Preparation, and Laboratory – 2 Credits**

**Pre-requisites – TSPPL1, TSPHL2, TSPVL2**

**Lecture 20 hrs/Laboratory 20 hrs**

This course provides the student an introduction to the fundamentals, processes, and function with oxi-fuel. It also includes information of the chemical composition of safety bottles, tools, and job position.

**TSTIL4 – Industrial Pipe Welding and Laboratory – 6 Credits**

**Pre-requisites – TSPSCL3, TSEL3, TPCMB3**

**Lecture 40 hrs/Laboratory 80 hrs**

This course introduces students to the fundamentals and procedures of industrial pipe welding. Students will have the opportunity to become acquainted with appropriate techniques for cutting, beveling, spot welding, and welding different kinds of pipes, practicing all positions and joints that are studied during the course.

**TECHNOLOGY IN MARINE MECHANICS WITH ELECTRONIC SYSTEMS**

**TIMMA1 – Introduction to Marine Mechanics – 3 Credits**

**Lecture 60 hrs**

This course is focused on presenting students to the environment and subject matter of marine mechanics. The course presents fundamentals and regulations of the industry, laying the groundwork for more specific study within the field of specialization.

**TIMAR1 – Marine Introduction – 3 Credits**

**Lecture 60 hrs**

This course presents students with an overview of the maritime environment, not only with regard to technical and mechanical aspects but with regard to safety at the dock and at sea.

**TMCIT1 – Internal Combustion Engine and Laboratory (Jet ski and Outboard) – 4 Credits**

**Lecture 30 hrs/Laboratory 50 hrs**



This course includes an overview of the principles of combustion, which are applicable to two and four cycle engines. The course describe gasoline as well as diesel engines

**TSIAC2 –Air Conditioning System (Marine Mechanics) – 3 Credits**  
**Lecture 20 hrs/Laboratory 40 hrs**

This course is designed to familiarize students with marine refrigeration. The course includes basic and general principles to include specialized systems that are applicable to the marine environment.

**TSICO3 – Computerized Injection System and Laboratory (Inboard and outboard motors, Marine Engines / Jet ski) – 5 Credits**  
**Lecture 35 hrs/Laboratory 65 hrs**

This course includes the fundamentals of different fuel injection systems in marine technology; includes diagnosis for maintenance and repair of these systems.

**TSCOL3 – Fuel System and Laboratory (Jet ski and Outboard) – 4 Credits**  
**Lecture 30 hrs/Laboratory 50 hrs**

This course includes the different kinds of fuel that are used in the industry; includes the supply and measurement systems for different kinds of engines, as well as describing diagnostic, preventive, and repair procedures.

**TSIEL4 – Basic Electrical System (Marine Mechanics) – 1 Credit**  
**Pre-requisites –TFDEL2**  
**Lecture 20 hrs**

This course includes the operation and construction of accumulators (batteries), ignition engines, alternators, and generators. The course also covers diagnostics and service for these components.

**TSCMG4 – Gas Emission and Control System and Laboratory (Jet Ski and Outboard) – 3 Credits**  
**Pre-requisites –TSICO3**  
**Lecture 20 hrs/Laboratory 40 hrs**

This course provides information on contamination and emission control systems. Contaminants and applicable regulations and laws are describe.

**TSEAA4 –Electrical and Electronic System (Jet ski and Outboard) – 5 Credits**  
**Pre-requisites –TFDEL2**  
**Lecture 35 hrs/Laboratory 65 hrs**

This course includes the fundamentals of electricity; identifies the kinds of circuits that are used in repairs and maintenance; it also includes the different applications within the maritime industry.

**TCALA4 – Trailers and Laboratory – 3 Credits**  
**Lecture 20 hrs/Laboratory 40 hrs**

The course covers regulations and laws applicable to trailers as well as types of trailers, dimensions, components, and electrical systems.

**TSTFUL5 – Power Transmission System and Laboratory (Jet Ski and Outboard)-6 Credits**  
**Lecture 40 hrs/Laboratory 80 hrs**

This course includes the principles and fundamentals of transmission systems as well as identifying systems that are applicable to marine technology. The course presents different kinds of power transmissions and their components and applications.

**TECHNOLOGY IN COLLISION AND AUTO BODY REPAIR**

**TMECA1 – Automotive Mechanics Applied to Collision and Auto Body Repair – 6 credits**  
**Lecture – 40 / Laboratory – 80**

This course will enable students to learn about different topics related to automotive mechanics combining them with topics that apply to collision and auto body repair.

**TFBAH1 – Basic Fundamentals of Collision and Auto Body Repair – 5 credits**  
**Lecture – 35 / Laboratory – 65**

This course provides students with the necessary knowledge about the collision and auto body repair, environmental regulations, and the construction of the modern compact.

**TSOES2 – Specialized Welding and Laboratory – 3 credits**  
**Lecture – 20 / Laboratory – 40**

Upon completing this course, students will have learned the welding type to be used when repairing collided car bodies. Students will also learn how to weld car bodies, structures, and other parts of collided vehicles.

**TEEST2 – Structural Straightening and Laboratory – 6 credits**  
**Lecture – 40 / Laboratory – 80**

Upon completing this course, students will be able to evaluate, quote, and repair damages to the structure of an automobile. Students will also be able to identify damaged safety points of a collided car.

**TCOLO3 – Colorimetry and Laboratory – 3 credits**  
**Lecture – 20 / Laboratory – 40**

Upon completing this course, students will be able to prepare and create different types of colors by combining different inks. Moreover, students will be able to perform the correct procedures when applying the different types of finishing coats.

**TPREPS3 – Preparation of Surfaces and Laboratory – 6 credits**  
**Lecture – 40 / Laboratory – 80**  
**Pre-requisite – TFBAH1**

Upon completing this course, students will be equipped with the knowledge and skills necessary for the preparation of surfaces. Students will learn specific application methods for both high quality materials and paints. Moreover, they will learn concealing techniques for sensitive surfaces as well as finishing procedures and techniques.

**TAPAC4 – Finishing Application and Laboratory – 5 credits**  
**Lecture – 35 / Laboratory – 65**  
**Pre-requisite – TPREPS3**

Throughout this course, students will learn and develop application techniques of different chemical materials, their correct handling, and automotive finishing techniques using cutting-edge materials that are appropriate for each type of finishing.

**TPRPL4 – Plastics Preparation and Repair and Laboratory – 4 credits**  
**Pre-requisite – TPREPS3**

**Lecture – 30 / Laboratory – 50**

This course will teach students about the knowledge used for identifying the different types of plastics, the restoration of plastic parts, and the repainting of an automobile's interior and exterior plastic parts.

**TPSEE5 – Principles of Electrical and Electronic System – 2 credits****Lecture – 40****Pre-requisite – TMECA1**

Throughout this course, students will have an opportunity to acquire theoretical and practical knowledge about electrical and electronic systems, their components, and diagnostics tools. Students will also learn how to create electrical circuits with relay monitors as well as other components.

**TSDRL5 – Repair of Small Damages, Detailing, and Laboratory – 2 credits****Lecture – 40****Pre-requisite – TPREPS3, TAPAC4**

This course deals with the development of basic repair skills for small imperfections, polishing, interior maintenance, and detailing. It will also provide students with the basic skills for small dent repairs without repainting, using cutting-edge repair techniques.

**CABTH5 – Basic Administration of the Collision and Auto Body Repair Shop – 2 credits****Lecture – 40****Pre-requisite – CCOST4**

This course offers training in the administration of a repair shop in order to efficiently develop and administer the business while keeping in mind the different costs, both fixed and variable, as well as the development of a production shop.

**TECHNOLOGY IN ADVANCED AUTOMATIC TRANSMISSIONS (48 credits)****TIMAU1 – Introduction to Automotive Mechanics – 3 Credits****Lecture 60 hrs**

This course provides an introduction to the fundamentals of automotive technology. It includes information on the manufacture and operation of automobiles. Certifications, safety, tools, information on service and maintenance are provided; which will be groundwork for future courses and practice.

**TMCI11 – Internal Combustion Engine and Laboratory – 4 Credits****Lecture 30 hrs/Laboratory 50 hrs**

This course covers the manufacture and operation of engines in late model automobiles. Cycles of four stroke engines are covered and names and locations of main components are presented. The course also includes engine metrics and performance.

**TITAU1 – Introduction to Automatic Transmissions – 4 Credits****Lecture 80 hrs**

This course is an introduction to the fundamentals of automatic transmission technology. Includes purposes, differences, and uses. In addition, basic components are identified.

**TSEEA2 – Electrical and Electronic Systems of the Automobile and Laboratory – 6 Credits****Lecture 30 hrs/Laboratory 50 hrs**

This course describes the operation, diagnosis and repair of the principal electric and electronic systems in automobiles. It includes systems such as ignition electronics, computerized systems, and their respective laboratories.

**TCMTA2 – Mechanical Components in Automatic Transmissions – 1 Credit**

**Pre-requisites –TITAU1**

**Lecture 10 hrs/Laboratory 10 hrs**

This course has been designed to examine the mechanical components of power transmission systems.

**TSEJA3 – Automobile Fuel Injection System (European, Japanese, and American Automobiles) and Laboratory – 6 Credits**

**Pre-requisites –TMCII1**

**Lecture 40 hrs/Laboratory 80 hrs**

This course provides an introduction to the operating principles of the various fuel injection systems. Although there are variations among these systems, their components are basically similar, including sensors, actuators, and modules.

**TTATD3 – Automatic Transmissions (Front-End Drive of European, Japanese, and American Automobiles) and Laboratory – 4 Credits**

**Pre-requisites –TITAU1**

**Lecture 30 hrs/Laboratory 50 hrs**

This course has been designed to explain and describe the operation and diagnosis of front-wheel drive transmission components in domestic and imported automobiles.

**TDIEJ3 – Differentials and Drive Axles – 2 Credits**

**Lecture 20 hrs/Laboratory 20 hrs**

This course has been designed to present the fundamentals of front-wheel and rear-wheel drive systems differentials and shafts.

**TTATT4 – Automatic Transmissions (Rear-End Drive of European, Japanese, and American Automobiles) and Laboratory – 6 Credits**

**Pre-requisites –TITAU1**

**Lecture 40 hrs/Laboratory 80 hrs**

This course has been designed to explain and describe the operation and diagnosis of rear-wheel drive transmission components in domestic and imported automobiles.

**TSCEL4 –Electronic Controls and OBD II Systems (Second Generation Computerized Diagnosis) – 5 Credits**

**Lecture 35 hrs/Laboratory 65 hrs**

This course has been designed to train students in the use of modern computerized systems as applied to current automatic transmissions. The systems are useful for diagnosis and repairs.

**MOTORCYCLES REPAIR AND MAINTENANCE**

**TIMMO1 – Introduction to Motorcycles Mechanics – 3 credits**

**Lecture 60 hrs**

This course provides the student general information regarding motorcycles repair and maintenance. The student may apply this knowledge for his personal use or professionally.

**TMCMP1 – 2 strokes and 4 strokes Internal Combustion Engine and Laboratory  
5 credits**

**Lecture 35 hrs/Laboratory 65 hrs**

This course includes everything related to combustion principles that apply to two cycle and four cycle engines.

**TSEEMO2 – Electrical and Electronic System and Laboratory - 4 credits  
Lecture 30 hrs/Laboratory 50 hrs**

This course details the operation, diagnosis and repair of the principal electrical and electronic systems in a motorcycle. It also includes systems such as: electronic ignition, computerized system and their respective laboratories.

**TELMO2 – Lubrication and Cooling System and Laboratory – 3 credits  
Lecture 20 hrs/Laboratory 40 hrs**

This course prepares the student in the repair and diagnosis of different types of lubricating and cooling systems for motorcycles. It requires knowledge and basic skills of different lubricating and cooling systems for motorcycles.

**TSIGN2 – Ignition Systems – 3 credits  
Lecture 20 hrs/Laboratory 40 hrs**

Upon completion of this course, the student will identify different types of ignition and its components. They will also identify the operation of an ignition system in a motorcycle.

**TSCCE3 – Fuel and Emission Control System and Laboratory – 6 credits  
Pre-requisites – TMCMP1  
Lecture 40 hrs/Laboratory 80 hrs**

This course covers everything related to fuel handling in motorcycles. It includes service, operation and functioning of different types of fuel systems. The course will provide information for the repair and diagnosis of different types of fuel systems including fundamentals related to combustion contaminants.

**TTMOT3 – Transmissions and Laboratory - 6 credits  
Pre-requisites – TIMMO1  
Lecture 40 hrs/Laboratory 80 hrs**

This course studies all aspects related to power transmissions used in motorcycles.

**TSFSD4 – Brakes, Suspension and Direction System and Laboratory – 3 credits  
Lecture 20 hrs/Laboratory 40 hrs**

This course studies the operation, construction, service and repair of brakes systems from conventional systems to antilock systems. It includes front and rear suspension components.

**TACCE4 – Accessories and Laboratory- 5 credits  
Lecture 35 hrs/Laboratory 65 hrs**

Upon completion of this course, the student will identify the types of motorcycles accessories available in the market. These accessories can be classified depending on the type of motorcycles to which they apply. The course includes sports, bikes, cruising bikes, all terrain bikes and small motorcycles.

### **TECHNOLOGY IN RACING MECHANICS**

#### **TEDMR1 – Fundamentals of Racing Mechanics – 4 credits Lecture 30 hrs/Laboratory 50 hrs**

This course details the configurations required for the construction of a racing automobile regarding its powertrain, chassis, body, and safety. It also studies the requirements for the compliance of regulations and the certifications required by organizations and racing tracks selected for competing.

#### **TEMMR11 – Construction and Modification of Racing Engines I and Laboratory – 6 credits Lecture 40 hrs/Laboratory 80 hrs**

This course details the construction and modification of engines for competitions (piston or rotor) according to the required applications and specifications. It includes the measurement and configuration of engines to obtain maximum performance and tolerance.

#### **TSACL2 – Racing Fuel Feeding System and Laboratory – 6 credits (Gasoline, Methanol, Nitro and Turbo) Pre-requisites – TFDMR1 Lecture 40 hrs/Laboratory 80 hrs**

This course studies everything related to the fuel feeding system, either carbureted or programmable injection system. It includes the operation, function, service modifications required according to its application and the competition specifications allowed.

#### **TEMMR22 – Construction and Modification of Racing Engines II and Laboratory – 3 credits Pre-requisites – TEMMR11 Lecture 20 hrs/Laboratory 40 hrs**

This course details the precise and exact measuring concept (blueprinting) and the adequate assembly process for racing engines (piston or Rotary) according to the desired and required specifications.

#### **TSEEAR3 – Electrical and Electronic System of the Racing Automobile and Laboratory (Racing Wiring) – 6 credits Lecture 40 hrs/Laboratory 80 hrs**

This course details the concept of precise and exact measuring (Blueprinting) and the adequate assembly process for competition engines (piston or rotative) according to the desired application and the required specifications.

#### **TFMSH3 – Machine Shop Fundamentals – 3 credits Lecture 20 hrs/Laboratory 40 hrs**

This course has been designed for the study, comprehension of properties, tests and treatments of metallic elements. The student will understand the alloys and compounds

manufactured that have facilitated productivity and have increased resistance to different machinery. The student will also understand that metals, especially ferrous, are used the most.

**TMASH13 – Machine Shop Work I and Laboratory – 3 credits**  
**Lecture 20 hrs/Laboratory 40 hrs**

In this course the student will learn the basic operations of the tool machine designed for prime matter of metallic or alloyed elements, to a normally flat finish.

**TSFL4 – Brakes System in Racing Automobiles and Laboratory – 3 credits**  
**Lecture 20 hrs/Laboratory 40 hrs**

This course details the operation, modifications, replacement, construction, services and repairs of conventional brakes system up until full racing brakes systems.

**TMASH24 – Machine Shop Work II and Laboratory – 3 credits**  
**Pre-requisites – TMASH13**  
**Lecture 20 hrs/Laboratory 40 hrs**

This course teaches the application of a mechanical lathe; the student will learn its use for high-precision tasks where cuts with any type of thread are required according to international standards. The student will also use mathematical and practical knowledge for calculations and cutting, all types of axles and of drilling operations.

**TCCSL4 – Chassis Construction, Suspension and Laboratory – 3 credits**  
**Lecture 20 hrs/Laboratory 40 hrs**

This course provides the student with the skills and knowledge required for the construction and modification of chassis.

**TTFLR5 – Power Transmission and Laboratory (Differential, Axle, Pinion, Automatic and Manual) – 5 credits**  
**Lecture 35 hrs/Laboratory 65 hrs**

One of the most important systems in a vehicle is the powertrain system which is composed of the transmission, transfer case and differential. This course studies all these systems and how they function.

**TOOL AND DIE MAKER TECHNICIAN**

**TTBAL1 – Bench Work and Laboratory – 3 credits**  
**Lecture 20 hrs/Laboratory 40 hrs**

This course has been designed so that the student can learn and discuss the importance of hand tools and the use of measuring to precision tools. The student will also apply mathematical formulas, measuring system conversion, and metal tracing by Reading blueprints for cutting and finishing of a part. The student will use adequate tools for each task and will apply basic formulas (RPM, TDS) to perform operations with the drill, always applying safety rules in the workshop.

**TTDIT1 – Technical Drawing – 3 credits**  
**Lecture 20 hrs/Laboratory 40 hrs**

Introduction of concepts and basic terminology of the graphic representation of several objects for its analysis and manufacture. Develop skills in the use of drawing instruments by applying pre-

established rules for the clear exposition of geometrical characteristics and function of an object for its elaboration in the workshop. Introduction to CAD ® system.

**TTORN2 – Lathe and Laboratory – 3 credits**

**Lecture 20 hrs/Laboratory 40 hrs**

This course has been designed for the student to acquire the necessary knowledge and skills for handling the mechanical lathe as a machine/tool by performing high precision tasks. The student will apply mathematical skills required tune basic skills according to industry needs.

**TTMP2 – Metals and Plastics – 3 credits**

**Lecture 20 hrs/Laboratory 40 hrs**

The student will learn the classification of metal materials and polymers and will be capable of integrating that knowledge into a manufacturing process. This course is based in the application and function of different types of materials knowing the characteristics and properties that these possess in order to understand its behavior. The student will have the ability of knowing the structure of these materials to be able to apply techniques and/or thermal treatment and hardening capacity in metals and transformation of polymers depending on their composition. Students will be introduced to 3D Printing application for the design and construction of parts and tools.

**TCAD2 – CAD Solidworks® – 3 credits**

**Lecture 20 hrs/Laboratory 40 hrs**

This course prepares students with advanced technical principles for drawing and/or scale design of parts and tools. In addition, it prepares the student in the Reading and interpretation of blueprints; they will also apply skills learned in the Technical Drawing and Metals and Plastics courses to be able to work with 3D drawings, produce auxiliary views and details, assembly views and three views.

**TFRE3 – Milling Laboratory – 3 credits**

**Lecture 20 hrs/Laboratory 40 hrs**

This course has been designed for a student to acquire knowledge and skills related to the operation of milling machines. The student will execute a variety of projects where he will tune his abilities in handling a milling machine which will help him/her to comply with industry requirements. When performing these operations, the student will be applying technical information related to the mechanism of RPM, TDS, and Advance machinery; among others.

**TREC3 – Grinder and Laboratory – 3 credits**

**Lecture 20 hrs/Laboratory 40 hrs**

This course is designed for students to learn the importance of grinder technology; they will learn its use to develop precision tasks. The student will also learn theory related to this machine and will use mathematical knowledge previously acquired to solve related problems.

**TCNC3 – CNC Laboratory – 3 credits**

**Lecture 20 hrs/Laboratory 40 hrs**

This course has been designed for the student to learn the technology of a CNC (Computerized Numerical Control). They will learn how to prepare manual and computerized programs, the system's language, and how to calculate coordinates for the Cartesian drawing or rectangular drawing. The student will work with G Code numerical language, will prepare programs to be used by this machine, and will design and work parts in the machine by using angles, radios in milling as well as in the CNC throne.



**GENERAL COURSES****COM 101 – Introduction to Computers****3 credits****Lecture 30 hrs/Laboratory 30 hrs**

This course offers an analysis of the functions of a computer programmer, the programs and different elements that make up data processing; techniques to make programs and the development of tables are also discussed. It studies a general introduction of the computer concepts and the hardware / software terminology; history and development of a computer until the present time and the use of a computer in businesses and daily life.

Conference: 4 hours per week

Laboratory: 2 hours per week

**SPA 111 – Basic Spanish****3 credits****Lecture 45 hrs**

This course offers a study of the Spanish Grammar with a structural, formative and functional focus making emphasis in the development of basic competencies in language arts, specially in oral, written and reading expression.

Conference: 3 hours per week

**SPA112 – Basic Spanish II – 3 credits****Lecture 60 hrs****Pre-requisites – SPA111**

This course has been designed as a continuation of Basic Spanish I. It studies the main literary genre such as: poetry, story, essay, and theatre and studies the creative process of these literary works. It works with the written production of the student who must produce simple sentences with sense, paragraphs, and essays.

**MAT 100 – General Mathematics I****3 credits****Lecture 45 hrs**

This course offers an introduction to the fundamental basics of mathematics and its applications. It studies the fundamental operations with natural numbers, decimals, fractions and percentages.

Conference: 3 hours per week

**ENG 111 – Basic English (Grammar I)****3 credits****Lecture 45 hrs**

This course studies the fundamentals of the English language with emphasis in grammar and its structure with the purpose of improving students' skills. In case a placement test is required, the student will need to take ENG 098.

Conference: 3 hours per week

**ENG 112 – Basic English (Grammar II)****3 credits****Lecture 45 hrs**

This course studies the fundamentals of the English language with emphasis in grammar and language and develops oral communication.

Conference: 3 hours per week  
Pre-requisite: ENG 111

**MAT 101 – General Mathematics II**

**3 credits**

**Lecture 45 hrs**

This course provides an introduction to basic mathematics fundamentals and its applications. It also studies fundamental operations with natural numbers, decimals, fractions, percentages, radicals, weights, measurements, areas, volume, first grade operations and metric system.

Conference: 3 hours per week  
Pre-requisite: MAT 100 or approve a placement test

**7.0 HOLIDAYS WITHIN THE ACADEMIC CALENDAR FOR P.R. OPERATIONS**

<b>DATE</b>	<b>HOLIDAY</b>
January 1st	New Year's Day
January 6th	Three Kings Day
2nd Monday in January	Eugenio María de Hostos Day
3rd Monday in January	Martin Luther King Day
3rd Monday in February	Washington Day (Presidents Day)
March 22nd	Slavery Abolition Day
3rd Monday in April	José de Diego Day
last Monday in May	Memorial Day
4th of July	Independence Day
3rd Monday in July	Muñoz Rivera Day
July 25 <sup>th</sup>	Constitution Day
July 27 <sup>th</sup> (celebrated on Monday)	José Celso Barbosa Day
1st Monday in September	Labor Day
October 12th	Columbus Day
November 11th	Veterans Day
4th Thursday in November	Thanksgiving Day
November 19th	Puerto Rico Discovery Day
December 25th	Christmas Day

**(Holidays applicable to classes in Orlando, Florida)**

<b>DATE</b>	<b>HOLIDAY</b>
January 1st	New Year's Day
3rd Monday in January	Birthday of Luther King
last Monday in May	Memorial Day
4th of July	Independence Day
1st Monday in September	Labor Day
October 8	Columbus Day
November 11	Veterans Day
4th Thursday in November	Thanksgiving Day
December 25th	Christmas Day

**Note:** These dates may vary and if necessary, classes will not be offered on these dates.

7.1 ACADEMIC CALENDAR FOR P.R. OPERATIONS 2022-2024 (TECHNICAL PROGRAMS)

Term	Length	Events	Holidays
I	August 15, 2022 to November 11, 2022	Enrollment: July 11 - August 11 Classes start: August 15 Late enrollment and changes: August 15 - 9 Academic recess: September 17 - 25 Classes resume: September 26 Mid-term grades: September 19 - 22 Faculty evaluations: October 3 - 6 Evaluation of faculty by students: September 26- October 13 Final exams: October 30 - November 7-10 Last day for make-up work: November 1 Last day for withdrawal: November 1 Last day of classes: November 10 Hand-in grades: November 10	<u>2022</u>  September 5 – Labor Day September 17-25- Hurricane Fiona Recess October 9 – Columbus Day November 11 – Veterans’ Day November 19 – P.R. Discovery Day (observed on Friday, November 18) November 24 and 25 – Thanksgiving Recess December 23, 2022, to January 8, 2023 – Winter Recess
II	November 14, 2022 to February 17, 2023	Enrollment: October 17 - November 10 Classes start: November 14 Late enrollment and changes: November 14 - 21 Mid-term grades: December 19 - 22 Faculty evaluations: January 23 - 26 Evaluation of faculty by students: December 19 - January 19 Final exams: February 13 - 16 Last day for make-up work: February 7 Last Day for withdrawal: February 7 Last day of classes: February 16 Hand-in grades: February 17 - 24	<u>2023</u>  January 1- New Year’s Day (observed Monday, January 2, 2023) January 16 – Martin Luther King Day February 20 – Presidents’ Day March 2 – U.S.A. Citizenship Day March 22 – Slavery Abolition Day April 6 and 7 - 29 – Holy Week Recess May 29 – Memorial Day June 19 – Juneteenth Day July 4 – Independence Day July 25 – P.R. Constitution Day July 27 – José Celso Barbosa Day September 4 – Labor Day October 9 – Columbus Day November 11 – Veteran’s Day (observed Friday, November 10) November 19 – P.R. Discovery Day (observed Monday, November 20) November 20 – 24 – Thanksgiving Recess December 22, 2023, to January 7, 2024 – Winter Recess
II Special	November 28, 2022 to February 17, 2023	Enrollment: October 17 - November 23 Classes start: November 28 Late enrollment and changes: November 28 Mid-term grades: January 9 - 12 Faculty evaluations: January 16 - 27 Evaluation of faculty by students: January 9 - 27 Final exams: February 13 - 16 Last day for make-up work: February 9 Last Day for withdrawal: February 9 Last day of classes: February 16 Hand-in grades: February 17 - 24	
III	February 21, 2023 to May 12, 2023	Enrollment: January 23 to February 18 Classes start: February 21 Late enrollment and changes: February 20 - 24 Mid-term grades: March 27 - 31 Faculty evaluations: March 27 - April 5 Evaluation of faculty by students: March 20 - April 5 Final exams: May 8 - 11 Last day for make-up work: May 2 Last day for withdrawal: May 2 Last day of classes: May 11 Hand-in grades: May 12 - 19	
IV	May 15, 2023 to August 11, 2023	Enrollment: April 17 to May 13 Classes start: May 15 Late enrollment and changes: May 15 - 19 Mid- term grades: June 20 - 23 Faculty evaluations: June 26 – July 5 Evaluation of faculty by students: June 12 - 22 Final exams: August 7 - 10 Last day for make-up work: August 1 Last day for withdrawal: August 1 Last day of classes: August 10 Hand-in grades: August 11 - 18	
V	August 14, 2023 to November 3, 2023	Enrollment: July 10 to August 12 Classes start: August 14 Late enrollment and changes: August 14 -18 Mid- term grades: September 18 - 22 Faculty evaluations: September 18 – 28 Evaluation of faculty by students: September 11 - 21 Final exams: October 30 - November 2 Last day for make-up work: October 24 Last day for withdrawal: October 24 Last day of classes: November 2 Hand-in grades: November 3 - 9	

Term	Length	Events	Holidays
V Special	September 11, 2023 to November 18, 2023	Enrollment: August 7 to September 9 Classes start: September 11 Late enrollment and changes: September 11-15 Mid-term grades: October 9 – 13 Faculty evaluations: October 23 – 26 Evaluation of faculty by students: October 9 - 20 Final exams: November 15 - 22 Last day for make-up work: November 14 Last day for withdrawal: November 14 Last day of class: November 18 Hand-in grades: November 18 - 29	<p style="text-align: center;"><u>2024</u></p> <p><i>January 1 – New Year’s Day</i> <i>January 6 – Three Kings Day (observed on Friday, January 5)</i> <i>January 15 – Martin Luther King</i> <i>February 19 – Presidents’ Day</i> <i>March 2 – U.S. Citizenship Day (observed Friday, March 1)</i> <i>March 22 – Slavery Abolition</i> <i>March 28 and 29 – Holy Week Recess</i> <i>May 27 – Memorial Day</i> <i>June 19 – Juneteenth Day</i> <i>July 4 – Independence Day</i> <i>July 25- Constitution of Puerto Rico Day</i> <i>July 27 – José Celso Barbosa Day (observed Friday, July 26)</i> <i>September 2 – Labor Day</i> <i>October 14 – Columbus Day</i> <i>November 11 – Veteran’s Day</i> <i>November 19 – Discovery of Puerto Rico Day</i> <i>November 28 and 29 – Thanksgiving Recess</i> <i>December 24, 2024 to January 6, 2025 – Winter Recess</i></p>
VI	November 13, 2023 to February 16, 2024	Enrollment: October 16 to November 9 Classes start: November 13 Late enrollment and changes: November 13 - 17 Mid-term grades: December 18 - 21 Faculty evaluations: January 8 - 18 Evaluation of faculty by students: December 11 - 21 Final exams: February 12 - 15 Last day for make-up work: February 6 Last day for withdrawal: February 6 Last day of class: February 15 Hand-in grades: February 16 - 23	
VI Special	November 27, 2023 to February 16, 2024	Enrollment: October 24 to November 22 Classes start: November 27 Late enrollment and changes: November 27 - December 1 Mid-term grades: January 8 -12 Faculty evaluations: January 22 - 25 Evaluation of faculty by students: January 16 - 18 Final exams: February 12 - 15 Last day for make-up work: February 8 Last day for withdrawal: February 8 Last day of class: February 15 Hand-in grades: February 16 - 23	
VII	February 20, 2024 to May 10, 2024	Enrollment: January 16 - February 16 Classes start: Tuesday, February 20 Late enrollment and changes: February 20 - 26 Mid-term grades: March 25 - 27 Faculty evaluations: March 25 to April 4 Evaluation of faculty by students: March 18 - April 27 Final exams: May 6 - 9 Last day for make-up work: April 30 Last day for withdrawal: April 30 Last day of class: May 9 Hand-in grades: May 9 - 16	
VIII	May 13, 2024 to August 9, 2024	Enrollment: April 15 - May 11 Classes start: May 13 Late enrollment and changes: May 13 - 17 Mid-term grades: June 24 - 28 Faculty evaluations: June 24 - July 3 Evaluation of faculty by students: June 17 - 27 Final exams: August 5 - 8 Last day for make-up work: July 30 Last day for withdrawal: July 30 Last day of class: August 8 Hand-in grades: August 9 - 16	
IX	August 12, 2024 to November 1, 2024	Enrollment: July 8 - August 10 Classes start: August 12 Late enrollment and changes: August 12 - 16 Mid-term grades: September 16 - 20 Faculty evaluations: September 16 - October 3 Evaluation of faculty by students: September 9 - 20 Final exams: October 28 - 31 Last day for make-up work: October 22 Last day for withdrawal: October 22 Last day of class: October 31 Hand-in grades: November 1 - 8	
X	November 4, 2024 to February 7, 2025	Enrollment: October 7 - November 2 Classes start: November 4 Late enrollment and changes: November 4 - 8 Mid-term grades: December 9 - 13 Faculty evaluations: December 9 - 12 Evaluation of faculty by students: December 2 - 12 Final tests: February 3 - 7 Last day for make-up work: January 28 Last day for withdrawal: January 28 Last day of class: February 6 Hand-in grades: February 7 - 14	

**This calendar is subject to change due to natural disasters or any other unforeseen events.**

7.2. ACADEMIC CALENDAR FOR MECH-TECH INSTITUTE OF ORLANDO, FLORIDA

Term	Length	Events	Holidays
I	August 14, 2022 to November 3, 2023	Enrollment: July 10 to August 11 Classes start: August 14 Last enrollment and changes: August 14 to 18 Mid- term grades: September 18 to 22 Faculty Evaluations: September 25 to 28 Students Evaluations to Faculty: September 11 to 21 Final Tests: October 30 to November 2 Last day for make-up work: October 24 Last day for withdrawal: October 24 Last day of classes: November 2 Grades: November 3 to 13	Sep. 4, 2023- Labor Day October 9, 2023-Columbus Day November 11, 2023- Veterans Day
II	November 13, 2023 to February 16, 2024	Enrollment: October 10 to November 10 Classes start: November 13 Last enrollment and changes: November 13 to 17 Mid- term grades: December 18 to 21 Faculty Evaluations: January 8 to 18 Students Evaluations to Faculty: December 19 to 11 Christmas Recess: December 22, 2023 to January 7, 2024 Final Tests: February 12 to 15 Last day for make-up work: February 6 Last day for withdrawal: February 6 Last day of classes: February 15 Grades: February 16 to 22	Nov. 23-24, 2023 Thanksgiving Recess December 22, 2023 to January 7, 2024- Winter Recess January 15, 2024- Martin Luther King Day
III	February 20, 2024 to May 10, 2024	Enrollment: January 18 to February 17 Classes start: February 20 Last enrollment and changes: February 20 to 26 Mid- term grades: March 25 to 27 Faculty Evaluations: March 18 to 27 Students Evaluations to Faculty: April 1 to 11 Final Tests: May 6 to 9 Last day for make-up work: April 30 Last day for withdrawal: April 30 Last day of classes: May 9 Grades: May 10 to 16	February 19, 2024 – President’s Day March 29, 2024 – Good Friday
IV	May 20, 2024 to August 16, 2024	Enrollment: April 22 to May 17 Classes start: May 20 Last enrollment and changes: May 20 to 24 Mid- term grades: June 24 to 27 Faculty Evaluations: July 1 to 11 Students Evaluations to Faculty: June 17 to 27 Final Tests: August 12 to 15 Last day for make-up work: August 6 Last day for withdrawal: August 6 Last day of classes: August 15 Grades: August 16 to 22	May 27, 2024- Memorial Day June 19, 2024- Emancipation Day July 4, 2024- Independence Day
V	August 19, 2024 to November 8, 2024	Enrollment: July 15 to August 16 Classes start: August 19 Last enrollment and changes: August 19 to 23 Mid- term grades: September 23 to 26 Faculty Evaluations: September 30 to October 3 Students Evaluations to Faculty: September 16 to 26 Final Tests: November 4 to 7 Last day for make-up work: October 29 Last day for withdrawal: October 29 Last day of classes: November 7 Grades: November 8 to 14	Sep. 4, 2024 - Labor Day October 14, 2024 - Columbus Day November 11, 2024 - Veterans Day

8.0 FACULTY

**8.1 Caguas Main Campus Faculty**

**8.1.1 Technical Programs**

<b>Mecánicas</b>		<b>Soldadura</b>	<b>Refrigeración y Aire Acondicionado</b>	<b>Cursos Complementarios</b>
Jomar Cerich Daniel Colón Juan Fernández Carlos Figueroa José Guzmán Francisco Molina José A. Sierra Ángel Suero	Víctor Cruz Kenneth De Jesús Jonathan De León Lenny González Juan López Misael Ortiz Ramón Sánchez Oscar Trinidad Richard Whitten	Daniel Colón Luis Rivera Rafael Rivera Diego Zalduondo	Edwin Cruz Luis G. Pérez Luis Pérez Ríos	Olga Álamo Eric Camacho Rebecca Carrión
			<b>Electricidad Industrial</b>	Maribel Cruz Melissa Díaz Medellin López Rafael Rivera
		<b>Sistemas de Seguridad</b>	Wilfredo Caraballo Edwin Cruz Melissa Díaz Luis Pérez Ríos Ángel Rivera Rafael Rivera Edwin Serrano Luis Torres	
		José Ferrer		



**8.1.2 Caguas Main Campus Associate Degree Faculty**

Nombres	Grados Académicos	Institución de Procedencia
Álamo, Olga	Maestría	Universidad de Puerto Rico
Ayala, Hector	Grado Asociado	Instituto Tecnológico de Puerto Rico
Carrión, Rebecca	Bachillerato	Universidad de Puerto Rico
Cruz, Juan	Maestría	Universidad del Turabo
Cruz, Maribel	Bachillerato	Universidad de Puerto Rico
De León, Luis	Grado Asociado	Mech Tech College
Díaz, Melissa	Maestría	Universidad Politécnica de Puerto Rico
Figueroa, Carlos	Bachillerato	Universidad Politécnica
García, Adolfo	Grado Asociado	Instituto Tecnológico de Puerto Rico
González, Norberto	Bachillerato	Universidad de Puerto Rico
Guzmán, José	Bachillerato	Universidad del Turabo
Molano, Ángela	Grado Asociado en Troquelería	Universidad de Puerto Rico
Padilla, Virmarie	Doctorado	Universidad de Puerto Rico
Pérez, Luis	Maestría	Universidad de Puerto Rico
Rivera, Rafael	Bachillerato	Universidad de Puerto Rico
Torres, Luis	Bachillerato	Universidad de Puerto Rico
<b>Profesores Sustitutos:</b>		
1. Cruz, Juan	2. Pérez Ríos, Luis	3. Dr. Cesar Toro

**8.2 Mayagüez Campus Faculty**

Mechanics	Collision Repair	Welding	Complementary Courses
Joel Acevedo Cruz Carlos Bermúdez Carlos García Eduardo Gil Nelson González Rafael Irizarry Alfred Jaxon Edwin Morales Luis Pérez Benigno Sanabria Edgar Torres David Troche Martí	José Martínez Yamil Mercado Juan Morales Edwin Rodriguez  <b>Electricity</b> Adolfo Castillo Leslie Rodríguez	Gerardo Lugo	Genaro Lugo Nannette Villanueva Leslie Rodríguez
<b>Substitute Instructors</b>			
* Yamil Mercado		* Leslie Rodríguez	

**8.3 Bayamón Branch Campus Faculty**

Mechanics	Metals	Complementary Courses
Francisco Flores Héctor García Juan Gorritz Hamedd Hernández José Ricardo López Remberto Negrón Ángel Rivera Ángel Sánchez Juan Soto	Francisco Flores Remberto Negrón	Remberto Negrón Francisco Flores Rossana Vélez
	<b>Refrigeration</b>	<b>Electricity</b>
	Omar Figueroa Luis Martinez Luis Zellek	Eduardo Diaz Orlando Torres
<b>Substitute Instructors</b>		Eric Rivera

**8.4 Vega Baja Faculty (Technical Programs)**

Mechanics		Electricity and Refrigeration	Welding	Complementary Courses
Abnell Martorell Albert Meléndez Jorge Adorno Héctor García Heriberto Juarbe Ismael Negrón Marcos Nieves	Manuel Rivera Nicolás Sánchez Rafael Serrano Alberto Vélez	Alexander Riestra Geovannie Sánchez Thomas Rosario	Manuel Cruz Felipe Rivera	Yanira González Rossana Vélez
		<b>Collision Repair</b>	<b>Substitute Instructors</b>	
		Cristóbal Báez Cristóbal Rosales Francisco Otero Jorge Robles	Carlos Cruz Carla Fontán Eric Rivera	

**8.4.1 Associate Degree Faculty (Vega Baja)**

Name	Academic Degree	Institution of Origin
Luis De León	Associate	Mech-Tech College
Yanira González	Masters	Central University of Bayamón
Rodrigo Martínez	Masters	University of Puerto Rico
Ismael Negrón	Bachelor's	Pontifical Catholic University of Puerto Rico
Norma Negrón	Bachelor's	University of Puerto Rico
Haydee Santiago	Masters	Cambridge College
Lorna Vázquez	Bachelor's	Sacred Heart University
Rosanna Vélez	Bachelor's	University of Puerto Rico
<b>Substitute instructors:</b>	*Carla Fontán	*Carlos Cruz

**8.5 Ponce Branch Campus Faculty**

Mechanics	Welding	Complementary Courses
García, Carlos García, William Meléndez, Elimanuel Robles, Rafael Tacoronte, Julio Vega Martínez, Reynaldo	Gotay, Nélide Quezada, Fernando Rivera, Alberto Santos, Jimmy Torres, José Vega, Cruz Ojeda, Josue	Rodríguez, Leslie Tacoronte, Julio
<b>Substitute Instructors:</b> *Carlos Cruz *Cruz Vega * Julio Illanas * Leslie Rodríguez		

**8.6 Mech-Tech Institute of Orlando, Florida Branch Campus Faculty**

Instructor's Name	Program of Study	Credential	Institution of Origin
Víctor Agosto	Diesel Mechanics	Military Training	US Army
Martin Burgos	Industrial Welding	Diploma	Mech Tech Institute
Juan R. Colón	Industrial Welding	Diploma	Trina Padilla de Sanz High School
Custodio Gonzalez	Automotive Mechanics	Diploma	University of Puerto Rico (Engineering)
Augusto Vila	Automotive Mechanics	Certificate	Mech-Tech College Bayamón, Puerto Rico
Gabriel Pagán	Racing Mechanics	High School Diploma	Escuela Superior Vocacional Dr. Pedro Perea Fajardo, Mechanics Mayaguez PR
Jaime Salgado	Industrial Welding	Diploma	Mech-Tech Institute
Ricardo Gutiérrez	Diesel Mechanics	Diploma	Mech-Tech Institute
Juan Carlos Rosario	Racing Mechanics	High School Diploma Work Experience	Continental Academy
Jose Morales	Computer Class	College credits High School Diploma	MBTI Aguadilla PR Esc. Juan Suarez Peregrina, Aguadilla PR

**9.0 RIGHT TO CORRECT THE CATALOG**

The provisions contained in this publication should not be censored as an irrevocable contract between an applicant or student and MTC/MTI . The Institution reserves the right to amend this Catalog while it is in effect. Notice of all changes that this Catalog undergoes will be given and set forth for the benefit of the entire institutional community, through the President’s Office and will be incorporated as an integral part of this document.

**9.1 SPECIAL REMEDIAL MEASURES**

The contents of this Catalog should not be interpreted as limiting the authority of MTC/MTI’s administration to initiate and adopt measures necessary in unforeseen circumstances not contemplated in this document.

**9.2 SEPARATION OF THE PROVISIONS OF THIS CATALOG**

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**9.3 APPROVAL OF THIS CATALOG**

The President of MTC/MTI approved this revised edition of the Catalog on April 30, 2024.

*Edwin J. Colón-Cosme*  
President

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