





## UNIVERSIDAD TECNOLÓGICA DEL NORTE DE AGUASCALIENTES, MEXICO. **Associate Degree in: Mechatronics, Automation Area**

Our careers are intended to Professionals Competences therefore the first 6 quartermesters of your career curriculum is called: Mechatronics, Automation Area.

In the second stage (the next 5 quartermesters) you'll finish your studies as: Bachelor degree in Science: Mechatronics.

## JOB OPPORTUNITIES

Providing technical support to small, medium and large businesses or even creating your own company.

In the manufacturing sector developing high technology, designing and creating systems of production and automation in technology labs.

JOB POSITIONS
As a Mechatronics Engineer you could perform different positions such as: Engineer, Supervisor, Manager, Director of Manufacturing, Technology, etc.

| Scholarships                                | We have 25 transportation routes for your |
|---------------------------------------------|-------------------------------------------|
| The UTNA has a scholarship scheme that      | comfort. For more distant locations.      |
| offers great opportunities for you to study |                                           |
| your career at the university.              |                                           |
| - Scholarship "Manutención"                 |                                           |
| - Scholarship "Bécalos"                     |                                           |
| - Internal Scholarship                      |                                           |

## **Business Incubator**

The UTNA offers students and general entrepreneurial community, a platform to boost business creation through its Business Incubator providing counseling, guidance to financial programs and diffusion in different photos.

Mechatronics in automation Area.

- Scholarship Food, Transport and Sport

| 1 <sup>st</sup> Quarter                   | 3 <sup>rd</sup> Quarter                     | 5 <sup>th</sup> Quarter                |
|-------------------------------------------|---------------------------------------------|----------------------------------------|
| <ul> <li>Sociocultural Studies</li> </ul> | <ul> <li>Sociocultural Studies 3</li> </ul> | • ESL 5                                |
| 1                                         | • ESL 3                                     | <ul> <li>Oral &amp; Written</li> </ul> |
| • ESL 1                                   | <ul> <li>Logical Programmable</li> </ul>    | expression 2                           |
| <ul> <li>Electric Circuits</li> </ul>     | drivers                                     | <ul> <li>Multidiscipline 2</li> </ul>  |
|                                           |                                             | (integradora)                          |







| <ul> <li>Oral &amp; Written expression 1</li> <li>Statistics and Dynamics Fundamentals</li> <li>Information Technology</li> <li>Mathematics</li> <li>Production Processes</li> </ul>                                                                                     | <ul> <li>Automation Projects         Planning</li> <li>Multidiscipline 1         (integradora)</li> <li>Automatic control         systems</li> <li>Digital Systems</li> <li>Mechanical systems</li> </ul>                                                                          | <ul> <li>Virtual Tooling</li> <li>Automated Systems<br/>Integration</li> <li>Visual Programming</li> <li>Tooling and control<br/>micro devices</li> </ul> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul> <li>2<sup>nd</sup> Quarter</li> <li>Sociocultural Studies</li> <li>ESL 2</li> <li>Electrical Engine control</li> <li>Analogical Electronics</li> <li>Dimensional Elements</li> <li>Sensorial Programming Logics</li> <li>Hydraulic and Pneumatic Systems</li> </ul> | <ul> <li>4<sup>th</sup> Quarter</li> <li>Sociocultural Studies 4</li> <li>ESL 4</li> <li>Industrial Tooling</li> <li>Electric Circuits Analysis</li> <li>Analogical devices</li> <li>Digital Systems 2</li> <li>Programming language</li> <li>Automation linear systems</li> </ul> | 6 <sup>th</sup> Quarter<br>Internship                                                                                                                     |

## CURRICULUM

Bachelor Degree in Science: Mechatronics Engineering

| <ul> <li>7<sup>th</sup> Quarter</li> <li>Applied Calculus</li> <li>Industrial Electricity</li> <li>ESL 6</li> <li>Computer assisted design</li> <li>Time Management</li> </ul> | <ul> <li>&amp;th Quarter</li> <li>Applied Differential equations</li> <li>Engines Control</li> <li>Mechanics for Automation</li> <li>Microdevices</li> <li>ESL 7</li> <li>Work Planning</li> </ul> | <ul> <li>9<sup>th</sup> Quarter</li> <li>Processes Statistic Control</li> <li>Automatic Control</li> <li>Project Management</li> <li>Mechanical Systems</li> <li>Cinematic and robot control</li> <li>ESL 8</li> <li>High performance teams Management</li> </ul> |
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| 10 <sup>th</sup> Quarter                                                                                                                                                       | 11 <sup>th</sup> Quarter • Internship                                                                                                                                                              |                                                                                                                                                                                                                                                                   |







- Digital Programmable devices
- Multidiscipline
- ESL 9
- Business Negotiation

Eleventh Semester Professional Practices

