Program Information
As machines continue to evolve in digital sophistication, intricately connected and operated by complex control systems, instrument technicians have become indispensable to keeping the wheels of industry turning. Working in a comprehensive industrial computer control lab, students learn how to install, maintain, and troubleshoot intelligent integrated control systems, developing skills highly sought after in chemical plants, refineries, pipeline companies, power plants, water treatment facilities, all types of manufacturing plants and many more.

The San Jacinto College non-destructive Testing technology program
- Covers three categories: control systems installation, maintenance, and troubleshooting.
- Teaches basic electrical theory and controls so that students can successfully perform entry-level instrument and electrical (IE) technician duties.
- Trains students to become technicians responsible for installing, calibrating, and troubleshooting individual process instruments, as well as complete control systems.
- Ensures that control systems technologists be able to navigate among various intelligent devices and implement sophisticated control strategies.

Career Opportunities
The primary focus of San Jacinto College’s Instrumentation Technology program is to provide the industry with high-quality, trainable, entry-level technicians. Our graduates will find employment in the following industries:
- Chemical plants
- Oil refineries
- Oil exploration and production companies
- Cross-country pipeline companies
- Electrical power plants
- Municipal water treatment facilities
- Manufacturer field technician positions
- Instrumentation maintenance positions in large buildings or on campus type facilities
- Manufacturing plants
- Instrumentation sales

Earning Potential
Instrumentation Technician: $25.00 - $38.00 per hour*
*Source: Texas Workforce Commission

For More Information
Call Center: 281-998-6150
General Email: information@sjcd.edu
San Jacinto College Central Campus
8060 Spencer Hwy.
Pasadena, TX 77505
Contact: 281-478-2712

An equal opportunity institution
Revised 3/2016
Instrumentation Analyzer (MINST)

Marketable Skills Achievement Award

First Term Credit
SCIT 1414 Applied General Chemistry I ..................................................4
INTC 1375 Sample Systems......................................................................3
INTC 1348 Analytical Instrumentation....................................................3
Subtotal 10

Instrumentation Analytical (6INST-ANLY)

Occupational Certificate

First Term Credit
SCIT 1414 Applied General Chemistry I ..................................................4
INTC 1375 Sample Systems......................................................................3
INTC 1348 Analytical Instrumentation....................................................3
Subtotal 10

Second Term Credit
INTC 2388 Internship-Instrumentation Technology/Technician or CPMT 1349 Computer Networking Technology or CETT 1302 Electricity Principles or PHYS 1401 College Physics I .................................................................3
EPCT 1349 Environmental Regulations Interpretation and Applications..................................................3
INTC 2345 Advanced Analyzers................................................................3
INTC 2374 Physical Properties Analyzers................................................3
Subtotal 12

Occupational Certificate Total 22

Instrumentation Technology (5INST)

Certificate of Technology

First Term Credit
INCR 1302 Physics of Instrumentation ..................................................3
CETT 1302 Electricity Principles ...............................................................3
ENER 1330 Basic Mechanical Skills for Energy......................................3
ENER 1240 Employee Success in Energy Industry.................................2
Speech.........................................................................................................3
Subtotal 14

Second Term Credit
OSHT 1320 Energy Industrial Safety .....................................................3
*TECM 1301 Industrial Mathematics .....................................................3
**Humanities and Fine Arts ..................................................................3
ETWR 1302 Introduction to Technical Writing......................................3
**Social and Behavioral Sciences ........................................................3
Subtotal 15

PostY1Summer Credit
CHEM 1405 Introduction Chemistry I ..................................................4
ENGL 1301 Composition I .....................................................................3
Subtotal 7

Certificate of Technology Total 36

Capstone Experience: OSHT 1320

*Students desiring to obtain a baccalaureate degree should take MATH 1314 College Algebra.

**Courses which satisfy this requirement are listed in the Humanities and Fine Arts, and Social and Behavioral Sciences sections of the Transfer Core Curriculum.

Note: For complete program descriptions, please refer to the San Jacinto Community College District Catalog online at www.sanjac.edu/catalog.
Instrumentation Technology (3INST)

**Associate of Applied Science Degree**

<table>
<thead>
<tr>
<th><strong>First Term</strong></th>
<th><strong>Credit</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>INCR 1302 Physics of Instrumentation</td>
<td>3</td>
</tr>
<tr>
<td>CETT 1302 Electricity Principles</td>
<td>3</td>
</tr>
<tr>
<td>ENER 1330 Basic Mechanical Skills for Energy</td>
<td>3</td>
</tr>
<tr>
<td>ENER 1240 Employee Success in Energy Industry</td>
<td>2</td>
</tr>
<tr>
<td>Speech</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Second Term</strong></th>
<th><strong>Credit</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>INTC 2310 Principles of Industrial Measurements II</td>
<td>3</td>
</tr>
<tr>
<td>OSHT 1320 Energy Industrial Safety</td>
<td>3</td>
</tr>
<tr>
<td>*TECM 1301 Industrial Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>INTC 1353 Analog Controls II</td>
<td>3</td>
</tr>
<tr>
<td>INTC 1315 Final Control Elements</td>
<td>3</td>
</tr>
</tbody>
</table>

**Subtotal 14**

**Third Term**

<table>
<thead>
<tr>
<th><strong>Credit</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>ETWR 1302 Introduction to Technical Writing</td>
</tr>
<tr>
<td>INTC 2330 Instrumentation Systems Troubleshooting</td>
</tr>
<tr>
<td>INTC 2339 Instrument and Control Review</td>
</tr>
<tr>
<td>INTC 2388 Internship-Instrumentation Technology or</td>
</tr>
<tr>
<td>INTC 2336 Distributed Control and Programmable Logic</td>
</tr>
</tbody>
</table>

**Subtotal 15**

**PostY1Summer**

<table>
<thead>
<tr>
<th><strong>Credit</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>INTC 1355 Unit Operations</td>
</tr>
</tbody>
</table>

**Subtotal 3**

**Fourth Term**

<table>
<thead>
<tr>
<th><strong>Credit</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>INTC 1315 Final Control Elements</td>
</tr>
<tr>
<td>INTC 1353 Analog Controls II</td>
</tr>
<tr>
<td>INTC 2330 Instrumentation Systems Troubleshooting</td>
</tr>
<tr>
<td>ETWR 1302 Introduction to Technical Writing</td>
</tr>
<tr>
<td><strong>Humanities or Fine Arts</strong></td>
</tr>
</tbody>
</table>

**Subtotal 15**

**Capstone Experience: INTC 2388 or INTC 2339**

Verification of workplace competencies.

*Students desiring to obtain a baccalaureate degree should take MATH 1314 College Algebra.*

**Note:** For complete program descriptions, please refer to the San Jacinto Community College District Catalog online at www.sanjac.edu/catalog.