

## **ATMAE Accredited Programs:**

### **Drafting and Design Technology**

#### **Goals and Objectives:**

- To provide the most up-to-date training for students who wish to enter the field of drafting and computer aided design,
- To give students an in-depth knowledge of the functions of the computer aided drafting software used currently in industry,
- To expose students to the different career fields in the industry, such as architectural drawing, piping, structural, electrical and to produce a student project in one specific area.

#### **Program Outcomes:**

- Graduates will have a working knowledge of CADD, 3D CADD and Plant 3D systems,
- And, will understand and apply the principles of project management to design projects as individuals or working in teams,
- As well as have a well developed set of critical thinking skills useful in working in industry.

#### **Program of Study:**

##### **SEMESTER 1**

ENGL 1010 English Composition  
CSCI 1010 Introduction to Computer Technology  
DRFT 1000 Fundamentals of Drafting & Design  
CADD 1100 Introduction to CADD

##### **SEMESTER 2**

SPCH 1200 Intro to Public Speaking  
MATH 1100 College Algebra  
CADD 1200 Advanced CADD  
PRNT 1000 Print Reading for Industry  
JOBS 2450 Job Seeking Skills

##### **SEMESTER 3**

DRFT 1300 Introduction to Disciplines  
CADD 1300 3-D CADD Concepts  
PHSC 1010 Physical Science I  
PHSC 1010L Physical Science Lab  
\*Elective

#### **SEMESTER 4**

DRFT 1500 Advanced Drafting Disciplines

\*Elective

\*\*CADD 17XX Special Projects

\*\*\*Social Science Electives

#### **\*Elective Options**

PTEC 2030 Plant Safety

PTEC 2070 Statistical Quality Control

PRMT 1000 Introduction to Project Management

#### **\*\*Special Projects**

CADD 1710 Plant Design (Plant 3D)

CADD 1720 Construction Design (Revit)

CADD 1730 Product Design (Inventor)

#### **\*\*\*Social Science Electives**

Psychology, Sociology, Economics, Geography or Political Science

#### **Mission Statement:**

The Drafting and Design Technology program is a two-year technical program designed to give the student essential knowledge and skills required for efficient and productive performance in the drafting field.

#### **Drafting Statistics:**

Average Grade Point Average (GPA) of graduates:

**3.469**

Placement Rate of graduates:

**61%**

Average Starting Salary:

**\$35,500**

Average months to complete program:

**26 months**

# Industrial Instrumentation

## Goals and Objectives:

- To provide well trained graduates in the field of industrial instrumentation who will support the local and regional area industries,
- And who will demonstrate the ability to think critically and to solve problems related to their work as instrumentation techs.

## Program Outcomes:

- The Instrumentation graduate will have knowledge of current industry practices, safety and skills related to industrial instrumentation,
- Demonstrate effective written and oral communication skills,
- Apply scientific, mathematical principles and computer application to solve technical problems according to industry standards.

## Program of Study:

### SEMESTER 1

ETRN 1120 Fund of DC Circuits

ETRN 1130 Fund of AC Circuits

CSCI 1010 Computer Literacy

INST1110 Intro to Instrumentation

\*Required General Education Class

### SEMESTER 2

ETRN 1220 Transistor Circuits

ETRN 1420 Digital Electronics

ETRN 1210 Fund of Semiconductors

JOBS 2450 Job Seeking Skills

\*Required General Education Class

\*Required General Education Class

### SEMESTER 3

INST 2620 Motor Controls, Circuitry

INST 2820 Principles of Process Controls

\*Required General Education Class

### SEMESTER 4

INST 2630 Variable Speed Drives

INST 1330 Pressure and Level Measurement  
INST 1410 Flow Measurement  
INST 1420 Temperature Measurement  
INST 1430 Final Elements

#### **SEMESTER 5**

INST 2730 Analytical Measurements  
INST 2735 Vibration Analysis  
INST 2741 Programmable Logic Controllers  
INST 2610 Controllers  
INST 2841 Digital and Analog Control Systems  
\*Required General Education Class

#### **\*Required General Education Classes**

ENGL 1010 English Composition I  
MATH 1100 College Algebra  
SPCH 1200 Techniques of Speech  
PHSC 1010 Physical Science I  
PHSC 1010L Physical Science I Lab

\*Social Science of your choice (Sociology, Psychology, Geography, Political Science)

#### **AAS Requirement:**

INST 2991 Special Projects I  
INST 2999 Internship (for AAS students only)

#### **Mission Statement:**

The purpose of the Industrial Instrumentation program is to equip students with entry-level skills in the instrumentation craft and related career fields. The program also provides entry-level instrument technicians, meeting Louisiana's industrial needs.

#### **Instrumentation Statistics:**

Average Grade Point Average (GPA) of graduates:

**3.153**

Placement Rate of graduates:

**90%**

Average Starting Salary:

**\$47,480**

Average months to complete program:

**26 months**

## Process Technology

### Goals and Objectives:

- To equip Process Technology graduates with the knowledge and skills necessary to perform the duties of a Process Operator, and to
- Provide additional life skills that enable graduates of PTEC to find jobs in the local and regional areas as well as globally that provide a career path and lead to their economic success and stability

### Program Outcomes:

- Graduates will have the ability to critically think, numerically reason, creatively problem solve and be able to communicate in writing and verbally.
- Graduates will have the ability to identify plant equipment, appropriately use plant equipment, follow process diagrams and describe process inputs, process transformation and outputs.
- Graduates will complete an industry based internship which meets or exceeds local industry employment requirements.

### Program of Study:

#### SEMESTER 1

CSCI 1010	Introduction to Computer Technology
MATH 1100	College Algebra
PTEC 1000	Mechanical Aptitude/Spatial Relations
PTEC 1010	Introduction to Process Technology
PTEC 2030	Plant Safety
ENGL 1010	English Composition I

#### SEMESTER 2

PTEC 1310	Process Instrumentation I
CHEM 1010	<i>General Chemistry</i>
CHEM 1010L	<i>General Chemistry Lab</i>

#### OR

CHEM 2220	<i>Chemistry – Organic/Inorganic</i>
CHEM 2220L	<i>Chemistry – Organic/Inorganic Lab</i>
PTEC 1610	Plant Equipment
MATH 1110	<i>Plane Trigonometry</i>

#### OR

MATH 1410	<i>Technical Mathematics</i>
PTEC 2070	Statistical Quality Control

SPCH 1200      Techniques of Speech

**SEMESTER 3**

PTEC 1320      Process Instrumentation II

ENGL 1060      Technical Writing

*PHYS 2010      Physics*

*PHYS 2010L      Physics Lab*

**OR**

*PHSC 1010      Physical Science I*

*PHSC 1010L      Physical Science Lab*

PTEC 2420      Unit Operations (PT II Unit Ops)

JOBS 2450      Job Seeking Skills

**SEMESTER 4**

*PTEC 2911\*      Internship*

ECON 2010

or 2020      Economics

PTEC 2440      Process Troubleshooting

PTEC 2630      Fluid Mechanics

PTEC 2430      Unit Operations (PT III Capstone Project)

**Mission Statement:**

The mission of the Process Technology program is to teach the student to monitor, operate, and maintain equipment used in the process of raw material into marketable chemical/petrochemical products, and to equip students with entry-level skills in the process operation and related career fields.

**Process Technology Statistics:**

Average Grade Point Average (GPA) of graduates:

**3.162**

Placement Rate of graduates:

**75%**

Average Starting Salary:

**\$52,800.00**

Average months to complete program:

**27 months**