

Industrial Design Technology Degree Program

281-756-3784

(formerly Drafting Technology)

Degree: Associate of Applied Science (A.A.S.) – Tech Prep

Length: Four semester (Two-Year) Program

Purpose: The student who pursues the Industrial Design Technology curriculum will encounter a series of courses that cover the principles of architectural, piping, mechanical, and civil computer aided design and drafting. Students are also provided with an extensive hands-on laboratory experience in the discipline explored in each class. This well rounded educational experience, on state of the art equipment and software, affords an opportunity for students to explore specialized areas with the necessary qualifications for employment as entry-level drafters.

Program Requirements: As an essential member of the technician-engineering team, students should be mechanically, artistically or technically oriented and possess good computer skills.

Associate of Applied Science Degree Program

Course Number	Course Title	Lecture Hours	Lab Hours	Credits
First Semester				
COSC 1401	Micro-Computer Applications	3	3	4
DFTG 1315 or	Architectural Blue Print Reading or	2	2	3
DFTG 1325	Blue Print Reading and Sketching	3	1	0
DFTG 1405	Technical Drafting	3	3	4
TECM 1303	Technical Calculations	3	1	3
PSYC 1300 or	Learning Strategies or			
PSYC 2301 or	General Psychology or			
SOCI 1301	Introductory Sociology	<u>3</u>	<u>0</u>	<u>3</u>
		17	10	17
Second Semester				
ENGL 1301	Composition I	3	0	3
MATH 1314	College Algebra	3	0	3
DFTG 1409	Basic Computer-Aided Drafting	3	3	4
MCHN 1419 or	Manufacturing Materials and Processes or	4	1	4
ARCE 1403	Architectural Materials & Methods of Construction	4	0	0
Elective	Visual & Performing Arts/Humanities Core	<u>3</u>	<u>0</u>	<u>3</u>
		20	4	17
Third Semester				
DFTG 2419	Intermediate Computer-Aided Drafting	3	3	4
*DFTG 2440	Solid Modeling/Design	3	3	4
DFTG 2423 or	Pipe Drafting or			
DFTG 1433 or	Mechanical Drafting or			
DFTG 1417	Architectural Drafting- Residential	3	3	4
DFTG 2317	Descriptive Geometry	2	2	3
SPCH 1318 or	Interpersonal Communications or			
SPCH 1315	Public Speaking	<u>3</u>	<u>0</u>	<u>3</u>
		14	11	18
Fourth Semester				
DFTG 2471 or	Adv. Tech in Pipe Design or			
DFTG 2431 or	Adv. Tech in Architectural Design and Drafting or			
DFTG 2435	Adv. Technologies in Mechanical Design & Drafting	3	3	4
**DFTG Elective	Drafting Elective			4
**DFTG Elective	Drafting Elective			4
DFTG 2445 or	Adv. Pipe Drafting (with CADWorx) or			
DFTG 2428 or	Architectural Drafting-commercial or			
DFTG 2406	Machine Design	<u>3</u>	<u>3</u>	<u>4</u>
		6	6	16

Total Credits Required for Industrial Design Technology Degree.....68

* Capstone Course

**Drafting Electives Available Unless Previously Completed: DFTG 1410, 1417, 1433, 2423, 2428, 2430, 2431, 2432, 2435, 2440, 2445, 2450 and MCHN 1419

STUDENTS INTERESTED IN THE INDUSTRIAL DESIGN TECHNOLOGY DEGREE WITH FOLLOWING SPECIALIZATIONS MUST COMPLETE THE COURSES LISTED IN THAT PARTICULAR DISCIPLINE.

Specialization in Pipe Design

<i>Course Number</i>	<i>Course Title</i>	<i>Lecture Hours</i>	<i>Lab Hours</i>	<i>Credits</i>
PTAC 1302	Introduction to Process Technology	2	2	3
PTAC 1410	Process Technology I	3	2	4
DFTG 1410	Specializing Computer-Aided Drafting (Microstation)	3	3	4
DFTG 2423	Pipe Drafting	3	3	4
*DFTG 2445	Advanced Pipe Drafting (with CADWorx)	3	3	4
DFTG 2430	Civil Drafting	3	3	4
PTAC 2420 or	Process Technology II or	3	2	4
DFTG 2481	Cooperative Education for Drafting	<u>1/2</u>	<u>4/21</u>	<u>4</u>
		21/22	22/41	27

Specialization in Architectural Design

<i>Course Number</i>	<i>Course Title</i>	<i>Lecture Hours</i>	<i>Lab Hours</i>	<i>Credits</i>
DFTG 1315	Architectural Blueprint Reading	2	2	3
ARCE 1403	Architectural Materials and Methods of Construction	4	0	4
DFTG 2417	Architectural Drafting-Residential	3	3	4
*DFTG 2428 or	Architectural Drafting-Commercial or	3	3	4
*DFTG 2481	Cooperative Education for Drafting	1/2	4/21	4
DFTG 2431	Adv. Technologies in Architectural Design and Drafting	3	3	4
ARCE 1452	Structural Drafting	3	3	4
DFTG 2430	Civil Drafting	<u>3</u>	<u>3</u>	<u>4</u>
		22/23	21/42	27

Specialization in Mechanical Design

<i>Course Number</i>	<i>Course Title</i>	<i>Lecture Hours</i>	<i>Lab Hours</i>	<i>Credits</i>
DFTG 1325	Blueprint Reading and Sketching	3	1	3
MCHN 1419	Manufacturing Materials and Processes	3	1	4
DFTG 1433	Mechanical Drafting	3	3	4
DFTG 2450	Geometric Dimensioning and Tolerancing	3	3	4
DFTG 2406	Machine Design	3	3	4
*DFTG 2438 or	Final Project - Advanced Drafting or	3	3	4
*DFTG 2481	Cooperative Education for Drafting	1/2	4/21	4
DFTG 2435	Adv. Technologies in Mechanical Design & Drafting	<u>3</u>	<u>3</u>	<u>4</u>
		22/23	21/42	27

Industrial Design Technology Certificate Program

281-756-3784

Length: Two semester (One-Year) Program

Purpose: The one-year program prepares the student for entry into the design and drafting occupation.

Program Requirements: A minimum of 36 hours is required for this certificate.

<i>Course Number</i>	<i>Course Title</i>	<i>Lecture Hours</i>	<i>Lab Hours</i>	<i>Credits</i>
First Semester				
COSC 1401	Micro-Computer Applications	3	3	4
DFTG 1315 or	Architectural Blue Print Reading or	2	2	3
DFTG 1325	Blue Print Reading and Sketching	3	1	
DFTG 1405	Technical Drafting	3	3	4
DFTG 1409	Basic Computer-Aided Drafting	3	3	4
TECM 1303	Technical Calculations	<u>3</u>	<u>1</u>	<u>3</u>
		17	13	18
Second Semester				
DFTG 2419	Intermediate Computer-Aided Drafting	3	3	4
DFTG 1433 or	Mechanical Drafting or			
DFTG 2423 or	Pipe Drafting or			
DFTG 1417	Architectural Drafting-Residential	3	3	4
DFTG 2317	Descriptive Geometry	2	2	3
**DFTG ELECTIVE	Drafting Elective	0	0	4
ELECTIVE	College Elective	<u>0</u>	<u>0</u>	<u>3</u>
		8	8	18

Total Credits Required for Industrial Design Technology Certificate36

**Drafting Electives Available Unless Previously Completed: DFTG 1410, 1417, 1433, 2423, 2428, 2430, 2431, 2432, 2435, 2440, 2445, 2450, and MCHN 1419



Students of Industrial Design Technology (formerly Drafting Technology) acquire design and problem solving skills.