

Computer-Aided Drafting & Design

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If you can draw well, enjoy detailed work, and have a good visual eye, then take a look at drafting. Drafters are a cornerstone of design teams and work closely with engineers, designers, planners, and architects.

Drafters prepare technical drawings and plans used by production and construction workers to build everything — from automotive to aerospace, houses to high-rise buildings, and oil/gas piping to complex chemical plants. They typically perform their work in an office environment.

The Drafting Technology Program provides training experience in computer-aided drafting. The Associate of Applied Science Degree prepares students for entrance into the drafting profession confident of having received a strong foundation in drafting disciplines and skills.

NOTE: Students planning to transfer should see a counselor or a faculty advisor for transferable course substitutions.

[Download Program Brochure \(PDF\)](#)

What Will I Learn?

All manufacturing industries, research and development organizations, and design divisions of major corporations use drafters in the preparation of various stages of formal drawings. Typically, companies that hire engineers, architects or designers have a need for people skilled in drafting. The Computer-Aided Drafting Technology Program at Lee College prepares a person for an entry-level position as a junior drafter, drafter trainee, or drafter using computer aided drafting (CAD). The supportive technical course work in manufacturing, materials, science, mathematics and writing will aid students in continuing to advance their careers and assist in strengthening the background of those desiring to continue their education.

[View Program Learning Outcomes](#)

"What Can I Do With This Course of Study?"

Drafters work with computer-aided design and drafting systems to prepare drawings, but also need the knowledge of manual drafting and sketching. The most common types of drafters are architectural, civil, and mechanical. Our region is experiencing a surge of job openings for drafters.

AAS: Computer-Aided Drafting and Design Technology

Foundations: These are the courses students need in order to progress in their career/college pathway, as they either provide a certificate or lay the groundwork for moving to the next set of courses.

Course	Course Title	Counts Toward Certificate
DFTG 1405	Technical Drafting	TP1, DS1, CMT1, MET1
DFTG 1409	Basic Computer-Aided Drafting	TP1, DS1, CMT1, MET1
DFTG 2417	Descriptive Geometry	TP1, DS1, CMT1
DFTG 2419	Intermediate Computer-Aided Drafting	TP1, DS1, CMT1, MET1

Knowledge Building: These courses further the students' knowledge in the area of study and increase their preparation for the degree completion.

Course	Course Title	Counts Toward Certificate
DFTG 2432	Advanced Computer-Aided Drafting	DS1, MET1
*Select two additional electives to obtain the DS1 certificate: CNBT 1411, CNBT 1442, DFTG 1417, DFTG 2428, DFTG 2430. Choose according to guided electives track selected for the AAS.		
	Guided Elective	
	Guided Elective	
	Guided Elective	
	Guided Elective	
	Guided Elective	
DFTG 2486 or DFTG 1433 or DFTG 2423	Internship - Drafting and Design Technology/ Technician, General or Mechanical Drafting or Pipe Drafting	
ENGL 1301	English Composition I	

Completion: These are the courses the student needs in order to complete the degree plan and prepare to enter the workforce.

Course	Course OPTIONS	Counts Toward Certificate
Creative Arts/Language, Philosophy, and Culture	Suggested: ARCH 1311, HUMA 1301, SPAN 2311 Options: Any CA/LPC course	
SBS/HIST/GOVT PS	Suggested: Econ 2301, PSYC 2301, SOCI 1301 Options: Any SBS/HIST/GOVT PS core course	
Life and Physical Sciences	Suggested: BIOL 1406, BIOL 1407, GEOL 1403, GEOL 1404 Options: Any Life and Physical Sciences core course	

SPCH

Suggested: SPCH 1321
Options: Any SPCH
course

Guided Elective course: As part of the AAS in CADD, students have the ability to obtain certificates along the way. For the guided electives, students may take any of the following elective courses. However, to obtain an mET1 or CMT1, certificate student must take the courses designated.

Course	Course Title	Counts Toward Certificate
MET1 – Mechanical Technology Certificate		
DFTG 1433	Mechanical Drafting	DS1, MET1
DFTG 2435	Advanced Technologies in Mechanical Design and Drafting	DS1, MET1
MCHN 1438	Basic Machine Shop 1	DS1, MET1
DFTG 2407	Electrical Drafting	DS1
DFTG 2408	Instrumentation Drafting	DS1
CMT1 – Architectural Construction and Building Technology Certificate		
CNBT 1411	Construction Methods and Materials I	DS1, CMT1
CNBT 1442	Building Codes and Inspections	DS1, CMT1
DFTG 1417	Architectural Drafting - Residential	DS1, CMT1
DFTG 2428	Architectural Drafting - Commercial	DS1, CMT1
DFTG 2430	Civil Drafting	DS1, CMT1

CMT1: Certificate of Completion — Architectural Construction and Building Technology

Foundations: These are the courses students need in order to progress in their career/college pathway, as they either provide a certificate or lay the groundwork for moving to the next set of courses.

Course	Course Title	Counts Toward Certificate
DFTG 1405	Technical Drafting	PIED1, TP1, MET1, DS1, CMT1 & DT2
DFTG 1409	Basic Computer-Aided Drafting	PIED1, TP1, MET1, DS1, CMT1 & DT2
DFTG 2417	Descriptive Geometry	TP1, DS1, CMT1 & DT2
DFTG 2419	Intermediate Computer-Aided Drafting	PIED1, TP1, MET1, DS1, CMT1 & DT2

Knowledge Building: These courses further the students' knowledge in the area of study and increase their preparation for the degree completion.

Course	Course Title	Counts Toward Certificate
CNBT 1411	Construction Methods and Materials I	DS1, CMT1 & DT2
CNBT 1442	Building Codes and Inspections	DS1, CMT1 & DT2
DFTG 1417	Architectural Drafting - Residential	DS1, CMT1 & DT2
DFTG 2428	Architectural Drafting - Commercial	DS1, CMT1 & DT2
DFTG 1430	Civil Drafting	DS1, CMT1 & DT2

DS1: Certificate of Completion — Computer-Aided Drafting and Design Advanced Technology

Foundations: These are the courses students need in order to progress in their career/college pathway, as they either provide a certificate or lay the groundwork for moving to the next set of courses.

Course	Course Title	Counts Toward Certificate
DFTG 1405	Technical Drafting	PIED1, TP1, MET1, DS1, CMT1 & DT2
DFTG 1409	Basic Computer-Aided Drafting	PIED1, TP1, MET1, DS1, CMT1 & DT2
DFTG 2417	Descriptive Geometry	TP1, DS1, DMT1, DT2
DFTG 2419	Intermediate Computer-Aided Drafting	PIED1, TP1, MET1, DS1, CMT1 & DT2

Knowledge Building: These courses further the students' knowledge in the area of study and assist in completing their ds1 certificate.

Course	Course Title	Counts Toward Certificate
DFTG 2432	Advanced Computer-Aided Drafting	DS1

Completion: To complete the ds1 certificate, select any two electives from the following list.

Course	Course Title	Counts Toward Certificate
DFTG 1433	Mechanical Drafting	MET1 & DS1
DFTG 2435	Advanced Technologies in Mechanical Design and Drafting	DS1
MCHN 1438	Basic Machine Shop 1	MET1 & DS1

DFTG 2407	Electrical Drafting	DS1 & TP1
DFTG 2408	Instrumentation Drafting	DS1 & TP1
CNBT 1411	Construction Methods and Materials I	DS1, CMT1 & DT2
CNBT 1442	Building Codes and Inspections	DS1, CMT1 & DT2
DFTG 1417	Architectural Drafting - Residential	DS1, CMT1 & DT2
DFTG 2428	Architectural Drafting - Commercial	DS1, CMT1 & DT2
DFTG 2430	Civil Drafting	DS1, CMT1 & DT2

MET1: Certificate of Completion — Mechanical Technology

Foundations: These are the courses students need in order to progress in their career/college pathway, as they either provide a certificate or lay the groundwork for moving to the next set of courses.

Course	Course Title	Counts Toward Certificate
DFTG 1405	Technical Drafting	PIED1, TP1, MET1, DS1, CMT1 & DT2
DFTG 1409	Basic Computer-Aided Drafting	PIED1, TP1, MET1, DS1, CMT1 & DT2
DFTG 2419	Intermediate Computer-Aided Drafting	PIED1, TP1, MET1, DS1, CMT1 & DT2

Knowledge Building: These courses further the students' knowledge in the area of study and increase their preparation for the degree completion.

Course	Course Title	Counts Toward Certificate
MCHN 1438	Basic Machine Shop 1	MET1 & DS1
DFTG 1433	Mechanical Drafting	MET1 & DS1
DFTG 2432	Advanced Computer-Aided Drafting	MET1
DFTG 2435	Advanced Technologies in Mechanical Design and Drafting	MET1 & DS1

TP1: Certificate of Completion — Computer-Aided Drafting and Design

Foundations: These are the courses students need in order to progress in their career/college pathway, as they either provide a certificate or lay the groundwork for the AAS Degree in Computer-Aided Drafting and design.

Course	Course Title	Counts Toward Certificate
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DFTG 1405	Technical Drafting	PIED1, TP1, MET1, DS1, CMT1 & DT2
DFTG 1409	Basic Computer-Aided Drafting	PIED1, TP1, MET1, DS1, CMT1 & DT2
DFTG 2417	Descriptive Geometry	TP1, DS1, CMT1 & DT2
DFTG 2419	Intermediate Computer-Aided Drafting	PIED1, TP1, MET1, DS1, CMT1 & DT2

PIED1: Certificate of Completion — Process Instrumentation and Electrical Design

Foundations: These are the courses students need in order to progress in their career/college pathway, as they lay the groundwork for moving to the next set of courses.

Course	Course Title	Counts Toward Certificate
DFTG 1405	Technical Drafting	PIED1, TP1, MET1, DS1, CMT1 & DT2
DFTG 1409	Basic Computer-Aided Drafting	PIED1, TP1, MET1, DS1, CMT1 & DT2
IEIR 1302	Introduction to Direct Electrical Currents	PIED1
INTC 1312	Instrumentation and Safety	PIED1

Knowledge Building: These courses further the students' knowledge in the area of study and complete their certificate.

Course	Course Title	Counts Toward Certificate
DFTG 2419	Intermediate Computer-Aided Drafting	PIED1, TP1, MET1, DS1, CMT1 & DT2
DFTG 2408	Instrumentation Drafting	DT1 & TP1
DFTG 2407	Electrical Drafting	DT1 & TP1
INTC 1343	Application of Industrial Automatic Control	PIED1

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