

# CONSTRUCTION & MANUFACTURING

## INDUSTRIAL ENGINEERING TECHNICIAN

**Delivery:** Daytime Classes  
**Start:** Fall Semester, Full-Time

### AWARDS

Industrial Engineering Technician A.A.S. . . . . . 60 cr.

### MAJOR DESCRIPTION

The Industrial Engineering program allows students to “earn while they learn” and introduces students to a high demand and well-paid career field. According to the Minnesota Department of Employment and Economic Development (DEED), the industrial engineering field has the highest employee demand rating possible (5 out of 5 stars). The Industrial Engineering field is a vast and ever-changing industry that has numerous employment opportunities. Production and manufacturing industry has radically changed from decades prior. This career field now relies on robotics and mechanized production more than ever before.

The Industrial Engineering Technician program at DCTC introduces students to numerous areas that include mechanics, electrical, HVAC, programing, mechatronics, pneumatics, hydraulics, welding among numerous other field skills. Students become proficient in a blend of fields that allow them opportunities for many career paths.

The Industrial Engineering Technician program is not like normal college programs, but utilizes an apprenticeship model instead of the traditional college model. Students are highly encouraged to work in the industry while taking classes. The number of courses per semester varies because of this aspect. During the first year of the program, students receive skills necessary to find employment and/or internship during the summer between their first and second year. After returning in the fall, students continue employment during their second year because of a decrease in credit load. This setup allows students to “earn while they learn.”

### SALARY DATA

See latest data at [careerwise.minnstate.edu](http://careerwise.minnstate.edu).

- Average Wage: \$32.08/hour
- Top Earners: \$40.61/hour

### ADDITIONAL INFORMATION

Scan the QR code for more program information and specific program costs.



### INDUSTRIAL ENGINEERING TECHNICIAN

A.A.S. DEGREE

*All IETA courses must be taken in the sequence below. Please contact your program advisor with questions.*

#### First Year - Fall Semester 14 cr

IETA1001	Intro to Industrial Safety and Health . . . . .	2
IETA1100	Fundamentals of AC/DC Electricity I . . . . .	3
IETA1200	Fundamentals of AC/DC Electricity II . . . . .	3
IETA1300	Mechanical Fundamentals . . . . .	3
IETA1500	Print Reading . . . . .	3

#### First Year - Spring Semester 15 cr

IETA1400	Process Controls/Instrumentation I . . . . .	3
IETA1600	Welding Basics . . . . .	2
IETA1700	Fluid Power . . . . .	4
IETA1800	Mechanical Fundamentals for Process Control . . . . .	3
IETA1900	Programmable Logic Controls (PLC) Fundamentals . . . . .	3

#### First Year - Summer Session 7 cr

IETA2900	Internship . . . . .	4
ENGL1200	Technical Writing . . . . .	3

#### Second Year - Fall Semester 13 cr

IETA2000	Boiler Operations and Power Distributions . . . . .	3
IETA2300	Mechanical Fundamentals 3 . . . . .	4
HVAC2220	Commercial HVAC . . . . .	3
COMS1020	Interpersonal Communication . . . . .	3

#### Second Year - Spring Semester 11 cr

IETA2700	Introduction to Plumbing . . . . .	2
	General Elective (MnTC Goal 4) <i>MATS1340 recommended</i> . . . . .	3
	General Elective (any MnTC Goal 1-10) . . . . .	6

**TOTAL PROGRAM REQUIREMENTS 60**



**DAKOTA COUNTY**  
**TECHNICAL COLLEGE**

A member of Minnesota State

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This information is available in an alternate format by calling 651-423-8469 or TTY/Minnesota Relay at 1-800-627-3529.