



CERT

**Engineering and Drafting Technician  
2022-2023**

**50 Credits**

**Engineering Technology**

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**SUMMARY**

**COMPLETION CERTIFICATE  
ENGINEERING AND DRAFTING TECHNICIAN (50 credits)**

The **Engineering & Drafting Technician Completion Certificate** (CC) is a one-year certificate. The completion certificate is embedded within the two-year **Civil Engineering & Surveying Technology, AAS degree**. The coursework for the Engineering & Drafting CC is identical to the first-year of courses for the Civil Engineering

Three educational and career pathways for the Engineering & Drafting Technician CC include:

1. Stand Alone Completion Certificate. Direct to work.
2. First Year of Coursework for Civil Engineering & Surveying, AAS Degree
3. Pre-Engineering Transfer Coursework for Engineering, AS Degree

The Engineering Transfer degree requires 3 years to complete for student that do not begin Fall quarter of the first year with MTH251 Calculus I. The Engineering & Drafting Technician CC is a good option to consider for students that intend to pursue a transfer degree since the coursework will help secure internships and provides a completion degree if the student is not able to continue for 3 years.

In order to be eligible for financial aid, the Completion Certificate must be a pathway to a 2-year degree, and the students should select the 2-year degree as their major. The Completion Certificate is a direct pathway for (embedded in) the Civil Engineering and Surveying Technology, AAS degree. The AAS degree or Engineering Transfer, AS should be identified as the major for the student. See your UCC Advisor.

It is **strongly recommended** that students pursuing the AAS or AS degree apply to the UCC Registrar's Office for award of the Engineering & Drafting Completion Certificate either after the coursework is completed for the Completion Certificate or at time of graduation with the AAS or AS degree, since the Completion Certificates *is not automatically awarded*. The Completion Certificate will increase employment opportunities for graduates.

**FIRST TERM GUIDE**

**Completion Certificate: Engineering and Drafting Technician**

The first term guide at UCC is especially important. The courses you take during the first quarter at UCC will impact the amount of time required to complete your degree. Assuming your first term is fall quarter, you will be assigned an Academic Advisor and develop a Student Academic Plan (term x term planner) during fall quarter, after you begin classes. The Student Academic plan is entered into a UCC program called “Degree Works” during fall term. The Degree Works software allows the student to track progress towards graduation and to complete “what if” scenarios for plan adjustments.

A key core-course for the first term is ENGR111. One of the assignments in ENGR111 is to meet with Faculty Advisor and Academic Advisor to review the Academic Plan entered into Degree Works and to plan for second term (winter quarter) classes. Core program courses are generally in sequential order, and assume start in fall quarter. In some, cases the faculty advisor may waive pre-requisites or approve independent study courses in order for students to take core classes out of sequence. If your first term at UCC is not a fall quarter start, it is recommended that you meet with the Faculty Advisor and Academic Advisor, and develop the Academic Plan prior to beginning the first term.

Students generally must place into WR121 and MTH111, and begin in Fall term, to complete Engineering & Drafting Completion Certificate in three (3) terms. If math and writing placement is lower than WR121 or MTH111, additional term(s) may be required to complete. General education classes, including writing and lower division math courses are available during summer quarter. If placement testing results are less than WR121 or MTH111, it is also recommended that you meet with the Faculty Advisor and Academic Advisor, and develop the Academic Plan prior to beginning the first term. Digital literacy (computer skills), including basic proficiency with Windows operating system and file management, is required for the program. Students with beginning computer skills should consider taking CIS100 during their first term at UCC.

	Digital Literacy: Proficient				Digital Literacy: Beginning			
	Math Placement				Math Placement			
	MTH111		MTH95 or less		MTH111		MTH95 or less	
First Term Plan	Course Number	Cr	Course Number	Cr	Course Number	Cr	Course Number	Cr
Term 1**	ENGR111	3	ENGR111	3	ENGR111	3	ENGR111	3
	DRF112	3	DRF112	3	DRF112	3	DRF112	3
	GS203	4	Math*	4	GS203	4	Math*	4
	Writing*	4	Writing*	4	CIS100***	4	CIS100***	4
		14		14		14		14

\* Math and writing course depend on placement testing

\*\* Students beginning other than fall quarter or placing less than MTH111 should meet with Faculty Advisor and Academic Advisor to develop an Academic Planner in Degree Works prior to beginning first term

\*\*\* Recommended for students with beginning computer skills consider CIS100. Will increase total credits.

**ADVISING GUIDE**

**Completion Certificate: Engineering and Drafting Technician**

Program Prerequisites: See requirements needed for first term classes.

Possible Term Plan	Course Number	Course Title	Credits	Terms	Prerequisites/Notes
Term 1	DRF112	Computer Aided Drafting	3	F	None
	ENGR111	Engineering Orientation I	3	F	Prerequisite: MTH065
	GIS203	The Digital World and Geospatial Concepts	4	F	MTH 65 Elementary Algebra
	WR121	Academic Composition	4	F,W,S,Su	Prerequisite: WR115* and RD090* or appropriate placement test scores or placement by multiple measures; and basic computer word processing skills

Term 2	DRF113	Computer Aided Drafting II	3	W	Prerequisites: DRF112
	ENGR112A	Problem Solving and Technology	2	W	Prerequisite: ENGR111 or FOR111 or NR201
	MTH111	College Algebra	5	F,W,S,Su	Prerequisite: MTH095*, placement by approved measure, or instructor permission
	GIS234	GIS I Intro to Geographic Information Systems	4	W	None
	Choose	Human Relations Elective	3	F,W,S,Su	See Advisor & list of Approved Electives below (following page)

Term 3	GIS235	GIS II Data Analysis and Applications	4	S	GIS 234
	ENGR112B	Problem Solving and Technology	1	S	Prerequisite: ENGR111 or FOR111 or NR201
	ENGR245	Engineering Graphics	3	S	Prerequisite: DRF112
	MTH112	Elementary Functions	4	F,W,S,Su	Prerequisite: MTH111* or equivalent or instructor permission
	CIV214	Computer Aided Drafting - Civil 3D Virtual Design	3	S	Prerequisite: DRF112
	SUR161	Surveying I	4	S	Corequisite: MTH112* or instructor approval

*\*with a grade of C or better*

**APPROVED HUMAN RELATIONS ELECTIVES**

	Course Number	Course Number/Title	Credits	Terms	Prerequisites/Notes
Approved Electives	HD136	Strategies for Success	3	F,W,S	None
	PSY101	Psychology of Human Relations	3	F,W,S,Su	None
	SDP113	Human Relations for Supervisors	3	F	None
	SP105	Listening	3	W,S,Su	Recommended Prerequisites: WR095* or placement scores of 70 or above in writing; AND RD090* or placement scores of 85 or higher in reading
	SP218	Interpersonal Communication	3	W,S	Prerequisites: WR095* or placement by approved measure; AND RD090* or placement by approved measure
	SP219	Small Group Discussion	3	W,S	Recommended Prerequisites: WR095* or placement scores of 70 or above in writing; AND RD090* or placement by

Advising Notes	A minimum of 50 credit hours must be completed to receive a Completion Certificate at UCC. If a student places higher than MTH095, student may need to take additional elective courses to graduate with 45 or more hours.
	Students must complete all required credit hours with a grade of C or better in all courses.

Required/ Recommended Equipment and Software	