DIPLOMA IN COMPUTER AIDED DESIGN AND DRAFTING

At a Glance

Faculty

www.kpu.ca/science (http://www.kpu.ca/science/)

Area of Study:

www.kpu.ca/science/cadd (http://www.kpu.ca/science/cadd/)

Academic Level:

Undergraduate

Credential Granted:

Diploma

Start Date:

Fall (September)

Spring (January)

Intake Type:

- Limited

Minimum Credits Required:

62

Curriculum Effective Date:

01-Sep-2021

Description

The Computer Aided Design & Drafting (CADD) program is designed to develop and enhance practical skills; increasing students' knowledge for a successful CADD career. Throughout the program students will design and draft various projects that are produced in digital and physical models. Students will obtain extensive experience utilizing AutoCAD and BIM softwares.

This program offers students two unique ways to approach their learning. First, students may choose from two specializations:

- Architectural and Structural (Fall Admission Intake)
- Architectural and Mechanical (Spring Admission Intake)

Second, while all students apply for the Diploma, students have an optional exit point after one or two semesters of coursework gaining a Citation or Certificate.
Details on program and course dates are available on Kwantlen Course Timetables. Additional information is available at: kpu.ca/science/cadd (http://www.kpu.ca/science/cadd/)

Options

Diploma in Computer Aided Design and Drafting

The Diploma enables students to acquire advanced technical writing skills, Math skills and Physics skills, and to acquire technical skills in document control, web portfolio and CADD customization, sustainable design project management, and networking. These CADD courses are offered in the evening to facilitate certificate and advanced certificate graduates who are working in their industry.

Diploma in Computer Aided Design and Drafting with Co-operative Education

The Diploma in CADD with Co-operative Education allows students the option of pursuing a credential enhanced with a semester of work placement. Students interested in this credential must apply to and follow the terms and conditions indicated in the General Co-operative Education Requirements (https://calendar.kpu.ca/academic-regulations/co-operative-education/). Students complete the Co-operative Education component of this credential prior to the completion of 2000-level course components in the Diploma. Students interested in this option are advised to meet with an Academic Advisor and the CADD Program Chair.

Early Exit Options

Certificate in Computer Aided Design and Drafting

The Certificate prepares students for an entry level position as a CADD Drafting technician in the chosen Specialty. Using the most advanced CADD (Computer Aided Design & Drafting) software and 3 dimensional (3D) software, students will learn to produce drawings from concept sketches, design information, codes and specifications as per industry standards for production by builders and manufacturers.

Citation in Computer Aided Design and Drafting

The Citation incorporates the CADD Core which prepares students for the Specialty semester.

Career Opportunities

CADD/Drafting graduates may pursue a career in a variety of employment situations in architectural, engineering, manufacturing or municipal offices, or in a production /construction setting.

After a few years in CADD/Drafting many of our graduates move on to positions in sales, customer service, production management, estimating, CADD and network management and contract services (self-employment). Responsibilities can include design team management, project management of small projects, and production scheduling.

Requirements

On September 25, 2023 changes to the admission requirements for this program were approved by Senate. Effective Fall (September) 2024 the following conditions will apply:

Admission Requirements

In addition to the Faculty's Undergraduate Admission Requirement, which consists of KPU's Undergraduate English Proficiency Requirement (https://calendar.kpu.ca/admissions/english-proficiency-requirements/), the following program admission requirements apply:

- Satisfy the Math requirement at Level E1 of the Mathematics Alternatives Table (https://calendar.kpu.ca/course-information/mathematics-alternatives-table/)
- Complete the online CADD information session or an interview with a CADD department representative.

Advanced Standing

KPU Engineering Certificate graduates admitted to the CADD program may be eligible to receive advanced standing, in lieu of 16 credits of courses in CADD at the 1100 level.

Admission Requirements

In addition to the Faculty's Undergraduate Admission Requirement, which consists of KPU's Undergraduate English Proficiency Requirement (https://calendar.kpu.ca/admissions/english-proficiency-requirements/), the following program admission requirements apply:

- Satisfy the Math requirement at Level E1 of the Mathematics Alternatives Table (https://calendar.kpu.ca/course-information/mathematics-alternatives-table/); or through successful placement by the CADD Math Placement Test at a minimum of 60%
- Complete the online CADD information session or an interview with a CADD department representative.

Advanced Standing

KPU Engineering Certificate graduates admitted to the CADD program may be eligible to receive advanced standing, in lieu of 16 credits of courses in CADD at the 1100 level.

Applicants with Drafting 11 and/or 12 from a BC Secondary School can challenge the CADD 1100 course by writing a Qualifying Assessment. Contact the CADD Department Chair at cadd@kpu.ca for more information.

Curricular Requirements

The Diploma in CADD requires 62 credits, including completion of one of the Specializations

Code	Title	Credits
CADD 1150	Computer Aided Drafting & Design (CADD) Software	4
Select 12 credits from courses in CADD at the 1100 level		12
CADA 1201	Architectural Principles	4
CADA 1250	Introduction to Building Information Modeling (BIM) Software for Architectural	4
CADA 2110	Single Family Residential	4
CADA 2210	Commercial Buildings	4
CADD 2160	Professional Practice for Design and Drafting	4
CADD 2220	Sustainable Design	4
Select 3 credits from a course in MATH at the 1100 level or higher		3
Select one of the following:		3
CMNS 1140	Introduction Workplace Writing and Communications	
ENGL 1100	Introduction to University Writing	
Select one of the Specializations		16
Specialization in Architectural and Mechanical Drafting		
CADM 1230	Process Piping	
CADM 1250	3 Dimensional (3D) Parametric Solids Modeling Software	
CADM 2130	Conveyor Systems	
CADM 2230	Component Assembly and Details	
Specialization in Architectural and Structural Drafting		
CADS 1200	Introduction to Structural Drafting and Concrete	
CADS 1251	Introduction to Building Information Modeling (BIM) for Structural	
CADS 2100	Site Work	
CADS 2120	Structural Steel	
Total Credits		**62**

Credential Awarded

Upon successful completion of this program, students are eligible to receive either a **Diploma in Computer Aided Design and Drafting, Specialization in Architectural and Mechanical** or a **Diploma in Computer Aided Design and Drafting, Specialization in Architectural and Structural.**

Co-op Requirements
Co-operative Education

The Computer Aided Design and Drafting diploma is offered with a Co-operative Education option. Co-operative Education gives a student the opportunity to apply the skills gained during academic study in paid, practical work experience semesters. Students can complete one work semester while completing their diploma. Work terms generally occur full-time in separate 4 month work semesters. Work semesters alternate with academic study.

Students wishing to enter and participate in the Co-op Option must meet the following requirements:

Entrance Requirements

- Currently admitted to the Diploma in Computer Aided Design and Drafting program.
- Good Academic Standing
- Currently in first-year courses of the Computer Aided Design and Drafting program.

Work Term and Program Continuance Requirements

Procedures for enrollment in Co-operative Education work terms are outlined in the COOP course descriptions. Conditions for continuance in the program are:

- Successful completion of COOP 1101 prior to completion of second-year courses of the Computer Aided Design and Drafting program
- Minimum Program GPA of 2.5
- Instructor Permission

Co-op Course Requirements

The Co-operative Education designation requires successful completion of the following courses:

Code	Title	Credits
COOP 1101	Introduction to Professional and Career Readiness	1
COOP 1150	Co-op Work Semester 1	9
Total Credits		**10**

Note: COOP courses must be completed in ascending numerical order. COOP courses may be used only to satisfy the Co-op designation and cannot be used to satisfy other curricular requirements of the program.

Additional Requirements

In addition to the requirements stated above, all Co-op students must satisfy the General Co-operative Education Requirements (https://calendar.kpu.ca/academic-regulations/co-operative-education/).

Credential Awarded

Upon successful completion of this program with Co-operative Education, students are eligible to receive either a **Diploma in Computer Aided Design and Drafting, Specialization in Architectural and Mechanical, Co-operative Education Option** or a **Diploma in Computer Aided Design and Drafting, Specialization in Architectural and Structural, Co-operative Education Option.**