
Architectural CAD I

Architecture, Civil and Building Science

Course Number: CAD8407	Co-Requisites: N/A	Pre-Requisites: N/A
Applicable Program(s): Multiple Programs	AAL: Multiple Levels	Core/Elective: Multiple Core/Elective
Prepared by:	Cynthia Poulin, Professor	
Approved by:	Eric Marois, Chair, ACEBS	
Approval Date:	Tuesday, July 3, 2018	
Approved for Academic Year:	2018-2019	
Normative Hours:	45.00	

Course Description

Students are introduced to computer-aided drafting using AutoCAD. Focus is placed on the drawing and editing commands required to produce two-dimensional architectural drawings.

Relationship to Vocational Learning Outcomes

This course contributes to your program by helping you achieve the following Vocational Learning Outcomes:

0018X01FWO - Architectural Technology

- VLO 2 Prepare, read, interpret, and revise drawings, and other graphical representations used in building projects. (T, A,)
- VLO 13 Use and evaluate current and emerging technology to support building projects. (T, A,)

0018X03FWO - Architectural Technology**0018Y03FWO - Architectural Technology**

- VLO 2 Prepare, read, interpret, and revise drawings, and other graphical representations used in building projects. (T, A,)
- VLO 13 Use and evaluate current and emerging technology to support building projects. (T, A,)

0188W01FWO - Architectural Technician

0188W03FWO - Architectural Technician**0188X03FWO - Architectural Technician****0188Y03FWO - Architectural Technician**

- VLO 2 Assist in the preparation, reading, and interpretation of drawings, and other graphical representations used in building projects. (T, A,)
- VLO 13 Use current and emerging technology to support building projects. (T, A,)

0188X01FWO - Architectural Technician

- VLO 2 Assist in the preparation, reading, and interpretation of drawings, and other graphical representations used in building projects. (T, A,)
- VLO 13 Use current and emerging technology to support building projects (T, A,)

Relationship to Essential Employability Skills

This course contributes to your program by helping you achieve the following Essential Employability Skills:

- EES 3 Execute mathematical operations accurately. (T, A,)
- EES 4 Apply a systematic approach to solve problems. (T, A,)
- EES 5 Use a variety of thinking skills to anticipate and solve problems. (T, A,)
- EES 10 Manage the use of time and other resources to complete projects. (T, A,)
- EES 11 Take responsibility for one's own actions, decisions and consequences. (T, A,)

Course Learning Requirements/Embedded Knowledge and Skills

When you have earned credit for this course, you will have demonstrated the ability to:

1.) Set up the drawing environment for imperial and metric drawings

- Start a new drawing with or without a template and open an existing drawing file.
- Choose correct settings for drawing units and precision
- Set up drawing limits

2.) Draw and edit simple architectural drawings

- Choose and apply appropriate commands to create architectural drawings
- Choose and apply appropriate commands to edit architectural drawings

3.) Apply annotation to drawings

- Create annotative text styles and dimension style

Add annotation to drawings using personalized annotative styles, correct annotation scale(s) and basic text and dimension commands

4.) Assign and manage object properties

Create, assign and manage layer, color and linetype properties for objects

5.) Plot a drawing

Access Layout Space

Create and correctly scale viewport(s) in Layout Space

Apply correct annotation scale settings to viewport

Choose correct settings from the Plot Settings dialog box and apply the Plot command

Convert AutoCAD file to PDF (with layers)

6.) Create and use a personalized Template

Design and save a personalized metric Template as a .dwt file format

Employ a personalized metric Template to begin a new drawing

7.) Generate and manage Wblocks

Define and save Wblocks

Insert and re-define Wblocks

Learning Resources

Required text: (none)

Students must obtain a student version of the AutoCAD software for practice outside of scheduled lab time. Instructions for accessing and downloading the free software will be given during the first week of classes.

Other resources:

Professor's notes on Brightspace site (<https://algonquincollege.brightspace.com>)

Help menu as incorporated in the AutoCAD software

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Learning Activities

- Classroom instructions to demonstrate new concepts and commands followed by student practice time
- assignments to be completed outside of scheduled class time

Students will respect the environment by limiting the amount of paper used during this course. This can be achieved with the efficient layout of drawings on the sheet, making smaller test plots before submitting the final sheet and by identifying small corrections (in pencil) on the final plot instead of re-plotting multiple times.

Evaluation/Earning Credit

The following list provides evidence of this course's learning achievements and the outcomes they validate:

Midterm Exam(s) (20%)

Validates Outcomes: CLR 1, CLR 2, CLR 4, EES 3, EES 4, EES 5, EES 10

Assignment(s) (10%)

Validates Outcomes: CLR 1, CLR 2, CLR 3, CLR 4, CLR 5, EES 3, EES 4, EES 5, EES 10

Midterm Exam(s) (30%)

Validates Outcomes: CLR 1, CLR 2, CLR 3, CLR 4, CLR 5, EES 3, EES 4, EES 5, EES 10

In-class Work (20%)

Validates Outcomes: CLR 1, CLR 2, CLR 3, CLR 4, CLR 5, CLR 6, CLR 7, EES 3, EES 4, EES 5, EES 10, EES 11

Final Exam (20%)

Validates Outcomes: CLR 1, CLR 2, CLR 3, CLR 4, CLR 5, CLR 6, CLR 7, EES 3, EES 4, EES 5, EES 10, EES 11

Students are expected to meet evaluation and completion deadlines as stated in course outline and course section information documents. In circumstances where evaluation and/or completion deadlines are missed or student performance has been affected by a temporary or permanent disability (including mental health), interim or retroactive accommodations may be considered. In such instances, please consult your course faculty member. For other situations where deferral of evaluations may be warranted, please refer to college policy AA21.

Prior Learning Assessment and Recognition

Students who wish to apply for prior learning assessment and recognition (PLAR) need to demonstrate competency at a post-secondary level in all of the course learning requirements outlined above. Evidence of learning achievement for PLAR candidates includes:

- Portfolio
- Performance Test

Grade Scheme

Final Grade	Mark Equivalent	Numeric Value	Final Grade	Mark Equivalent	Numeric Value
A+	90% - 100%	4.0	A	85% - 89%	3.8
A-	80% - 84%	3.6	B+	77% - 79%	3.3
B	73% - 76%	3.0	B-	70% - 72%	2.7
C+	67% - 69%	2.3	C	63% - 66%	2.0
C-	60% - 62%	1.7	D+	57% - 59%	1.4
D	53% - 56%	1.2	D-	50% - 52%	1.0
F	0% - 49%	0	FSP	0	0

Course Related Information

See Brightspace site for course-specific information (CSI).

The following information is program-specific:

The following regulations apply to students in the Architectural Technician, Architectural Technology and Green Architecture programs of study.

Any circumstances that fall outside the following parameters have to be discussed with the Chair of the department for special consideration. The professor will apply the rules as described in the following paragraphs.

Laptops, Phones and Other Mobile Devices

During class/lab time these devices may only be used to access course material, take notes and research as required by your professor.

Gaming and Social Media

Computers in dedicated labs are not to be used for recreational purposes. This may result in a loss of lab privileges.

Attendance

To receive a passing grade and validate all course learning requirements, students must attend at least 75% of the scheduled classes/labs. If you are absent for more than 25% of class/lab time or are absent from two consecutive classes/labs, you may be required to meet with the Chair of the department to explain your plans for recouping the information you missed and to justify why you should remain in the course.

Group and Individual Work

Some courses are composed of group, team and/or individual work. Students must successfully pass the individual elements within the course before the group marks are added. Students must be able to demonstrate individual knowledge to successfully pass the course.

Late Policy

All core Architecture courses have a late submission policy. Service courses (English, Math and General Education) may choose to exempt students from this policy. All projects and or assignments that are deemed late according to the date and time in the Course Section Information (CSI) will receive a grade of zero. Under special circumstances the professor can make an exception if the information is communicated before the due date and if the work in progress is submitted electronically by the original due date. Any “after the fact” request will be discussed with the Chair of the department. Valid and proper documentation may be provided to substantiate the situation.

Student Academic Responsibilities

You are responsible for the following:

- attending all classes and on time;
- maintaining a folder for all work you do in the course;
- knowing the due dates for assignments and meeting these dates;
- handing in assignments that are your own work;
- maintaining multiple backups of the work you do in the course (backup daily); and
- keeping a copy of all assignments you submitted for marks in the course.

Code of Conduct

All members of the Algonquin Community will undertake to:

- conduct themselves in a manner which respects and promotes the dignity of others, and interact with others in the community in a spirit of cooperation, goodwill and mutual respect;
- conduct themselves in an honest and ethical manner, refraining from misrepresenting themselves, their work or qualifications in any manner, and refraining from violence, abuse, harassment and discrimination of any kind; and
- assist in the maintenance of good order within their environment and refrain from creating a disturbance or a disruption to activities.

See Algonquin College Policy SA07: Student Conduct

Department Related Information

Plagiarism and Academic Dishonesty

Your teachers are evaluating your work on the basis that it is yours and that it demonstrates your learning of the concepts. Any time a professor suspects plagiarism or academic dishonesty, she/he will discuss the situation with the Chair of the department. If the professor has enough evidence to convince the Chair, all the students involved will be contacted and invited to comment. If you are accused of plagiarism or academic dishonesty, be prepared to defend yourself as if you were a victim in this situation. Your comments to this allege situation are very important since any omission to respond within two school days will be considered as an agreement with the situation reported.

If you are in doubt of what is considered plagiarism or academic dishonesty, you can always validate it in advance with your professors. They will explain what they consider acceptable and not acceptable. Please note that each student is responsible to protect their own work and to make sure it is not used by other students as their own.

Resolution process

Each time there is a situation that requires an action or a clarification, the first step is to communicate with the professor involved or to reach an academic advisor and ask her/him about it. If there is no resolution, you should be discussing this with the coordinator. If the situation persists, you need to bring this up with the Department Chair. The sooner a situation is identified the better the chance to get a resolution. Not reporting an issue during the term is not an acceptable reason for requesting a grade review at the end of the term.

College Related Information

Email

Algonquin College provides all full-time students with an e-mail account. This is the address that will be used when the College, your professors, or your fellow students communicate important information about your program or course events. It is your responsibility to ensure that you know how to send and receive e-mail using your Algonquin account and to check it regularly.

Students with Disabilities

If you are a student with a disability, you are strongly encouraged to make an appointment at the Centre for Accessible Learning to identify your needs. Ideally, this should be done within the first month of your program, so that a Letter of Accommodation (LOA) can be provided to your professors. If you are a returning student, please ensure that professors are given a copy of your LOA each semester.

Retroactive Accommodations

Students are expected to meet evaluation and completion deadlines as stated in course outline and course section information documents. In circumstances where evaluation and/or completion deadlines are missed or student performance has been affected by a temporary or permanent disability (including mental health), interim or retroactive accommodations may be considered. In such instances, please consult your course faculty member. For other situations where deferral of evaluations may be warranted, please refer to college policy AA21.

Academic Integrity & Plagiarism

Adherence to acceptable standards of academic honesty is an important aspect of the learning process at Algonquin College. Academic work submitted by a student is evaluated on the assumption that the work presented by the student is his or her own, unless designated otherwise. For further details consult Algonquin College Policies AA18: Academic Dishonesty and Discipline and AA20: Plagiarism

Student Course Feedback

It is Algonquin College's policy to give students the opportunity to share their course experience by completing a student course feedback survey for each course they take. For further details consult Algonquin College Policy AA25: Student Course Feedback

Use of Electronic Devices in Class

With the proliferation of small, personal electronic devices used for communications and data storage, Algonquin College believes there is a need to address their use during classes and examinations. During classes, the use of such devices is disruptive and disrespectful to others. During examinations, the use of such devices may facilitate cheating. For further details consult Algonquin College Policy AA32: Use of Electronic Devices in Class

Transfer of Credit

It is the student's responsibility to retain course outlines for possible future use to support applications for transfer of credit to other educational institutions.

Note: *It is the student's responsibility to refer to the Algonquin College Policies website for the most current information at <http://www.algonquincollege.com/policies/>*

Legend

Terms

- ALO: Aboriginal Learning Outcome
- Apprenticeship LO: Apprenticeship Learning Outcome
- CLR: Course Learning Requirement
- DPLO: Degree Program Learning Outcome
- EES: Essential Employability Skill
- EOP: Element of Performance
- GELO: General Education Learning Outcome
- LO: Learning Outcome
- PC: Program Competency
- PLA: Prior Learning Assessment
- PLAR: Prior Learning Assessment and Recognition
- VLO: Vocational Learning Outcome

Assessment Levels

- T: Taught
- A: Assessed
- CP: Culminating Performance