BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY

School: *Manufacturing & Industrial Mechanical*

Program: *Computer Aided Engineering*

*AICO 1000*
*AutoCAD 1*

| | | | | |
|---|---|---|---|---|
| **Start Date:** | January 14, 2006 | | **Start Time:** | 8:30 AM |
| **End Date:** | February 18, 2006 | | **End Time:** | 3:30 PM |

**Total Hours:** 36   **Total Weeks:** 6      **Term/Level:** 1   **Course Credits:** 3

**Hours/Week:** 6   **Lecture:** 12   **Lab:** 24   **Shop:**      **Seminar:**      **Other:**

**Prerequisites**                              **AICO 1000 is a Prerequisite for:**

| **Course No.** | **Course Name** | **Course No.** | **Course Name** |
|---|---|---|---|
| AICO 0050 | Windows Fundamentals for AutoCAD | AICO 2000 | AutoCAD 2 |

### Course Calendar Description

The first step in CAD training requires a thorough understanding of commands and features of the CAD software. This intensive, hands-on course prepares the student with the knowledge and skills necessary for creating a basic 2D drawing. Other areas of study include: editing, view manipulation, text, dimensioning, hatching and plotting techniques.

### Course Goals

The goals of the course are to understand basic CAD concepts; particularly adherence to standards and data integrity and to create and print a basic 2D working drawing complete with text, dimensions, border, and title block.

### Evaluation

| | | |
|---|---|---|
| Assignments: | 60 % | Six assignments will be given. |
| Practical Exam: | 40 % | The practical exam will be on the last day of classes. The exam is open book and notes. |
| TOTAL | 100 % | |

### BCIT Policy Information for Students

Please visit www.my.bcit.ca or www.bcit.ca for Policy information.

## Course Learning Outcomes/Competencies

Upon successful completion of this course, the student will be able to:
1. Use the AutoCAD interface to access commands and files.
2. Access the on-line help system and user documentation.
3. Setup drawings and establish initial drawing settings.
4. Use layers effectively to manage object properties.
5. Establish CAD standards.
6. Create and use a template file.
7. Create 2D drawings using the Draw commands.
8. Edit drawings with the Modify commands.
9. Change the drawing display using View commands.
10. Use effective CAD construction techniques to ensure data accuracy and integrity.
11. Use Inquiry tools to verify accuracy of CAD constructions.
12. Define text styles and create text to accepted standards.
13. Create basic symbols as blocks.
14. Place basic dimensions.
15. Place hatch patterns.
16. Layout a single viewport drawing.
17. Print or plot a 2D drawing.

## Course Content Verification

I verify that the content of this course outline is current, accurate, and complies with BCIT Policy.

_____                    1/12/2006
Program Head/Chief Instructor                       Date

Note:  Should changes be required to the content of this course outline, students will be given reasonable notice.

## Instructor

Kamal Tatlay              Office No.:  SW9 202          Office Phone:     432-8906
                          Office Hrs.:                 E-mail Address: ktatlay@bcit.ca

## Learning Resources
*Required:*
- Memory device - USB Flash drive or CD

- Ascent AutoCAD 2006 Level 1 Essentials & Beyond the Basics

**BCIT**

*Schedule*

BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY
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*Program: Computer Aided Engineering*

**AICO 1000**
**AutoCAD 1**

| Week of/ Number | Outcome/Material Covered | Reference/ Reading | Assignment | Due Date |
|---|---|---|---|---|
| **1**<br>Jan. 14 | Introduction, Objectives | Course Outline | 1 | Jan. 21 |
|  | Starting AutoCAD, User Interface | E p.1-2 |  |  |
|  | Basic Drawing & Editing | E p.1-18 |  |  |
|  | Drawing Precision | E p.2-2 |  |  |
|  | Getting Information | E p.3-34 |  |  |
| **2**<br>Jan. 21 | Drawing Setup | B p.3-4 | 2 | Jan. 21 |
|  | Layers | E p.3-2 & B p.3-8 |  |  |
|  | Making Changes | E p.2-25 | 3 | Jan. 28 |
| **3**<br>Jan. 28 | Polylines | E p.3-24 | 4 | Feb. 4 |
|  | Advanced Editing | E p.4-2 |  |  |
| **4**<br>Feb. 4 | Duplication Commands | E p.4-21 |  | Feb. 11 |
|  | Templates | E p.3-3 & B p.3-3 | 5 |  |
|  | Hatching | E p.6-17 |  |  |
|  | Text Styles | B p.3-14 |  |  |
| **5**<br>Feb. 11 | Dimensioning | E p.6-30 & B p.3-18 | 6 |  |
|  | Creating Text | E p.5-12 |  |  |
|  | Blocks Defining & Inserting Blocks | E p.4-35 & B p.2-2 |  |  |
| **6**<br>Feb. 18 | Final Exam |  |  |  |
|  | Preparing to Print | E p.5-1 |  |  |