A POLYTECHNIC INSTITUTION

Course Outline

School of Manufacturing, Electronics and Industrial Processes
Program: Technology Teacher Education
Option: Diploma

TTED 4001
Design, Drawing & CAD 2

Start Date:	September 6, 2006				**End Date:**	November 10, 2006		
Total Hours:	30	**Total Weeks:**	15		**Term/Level:**	3	**Course Credits:**	1.5
Hours/Week:	2	**Lecture:**	1	**Lab:** 1	**Shop:**		**Seminar:**	**Other:**

Prerequisites		**TTED 4001 is a Prerequisite for:**	
Course No.	**Course Name**	**Course No.**	**Course Name**
All term 1 and	2 TTED courses		

■ Course Description

This course extends the student's capability in the design and production of working drawings. Students will complete a set of working drawings for the TTED 4080 Technology Projects Course.

■ Detailed Course Description

This course expands on the content of TTED 4000 by offering advanced presentation of products and designs. Advanced modeling techniques and the ability to objectively critique designs will add to student's communication skills.

The goals of the course are to:

- develop a heightened awareness for the need to graphically communicate ideas, specifications and construction details of technological artefacts.
- expose students to various graphical methods and techniques to satisfy specific purpose.

■ Evaluation

Tutorial	5%
Exercise	5%
Assignment 1	15%
Assignment 2	15%
Final Quiz	40%
Assignment 3 - Part for 4080 project	20%
TOTAL	100%

Comments:

In addition to the labs done during class time, there is a third assignment. At least one of the components of your 4080 project must be documented using Inventor (fully modelled and a drawing view produced). This assignment is due after November 10.

■ Course Learning Outcomes/Competencies

Upon successful completion, the student will be able to:

1. identify the most appropriate drawing type to best communicate aspects of Technology Education projects and activities.

2. manipulate paper and electronic methods of graphic communication to effectively and efficiently communicate ideas and specifications.

3. create a simple part using Autodesk Inventor software.

4. prepare drawings to recognized ANSI/ISO standards and conventions.

■ Verification

I verify that the content of this course outline is current.

Authoring Instructor — Date: SEPT 5 / 06

I verify that this course outline has been reviewed.

Program Head/Chief Instructor — Date: Sept 5/06

I verify that this course outline complies with BCIT policy.

Dean/Associate Dean — Date: 2006/09/05

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

■ Instructor(s)

James Bartz
Office Location: SW9–202
Office Hrs.: As posted
Office Phone: 604-432-8924
E-mail Address: jbartz@bcit.ca

■ Learning Resources

Required:

Principles of Engineering Drawing, Lamit & Kitto-West Publishing Company, 1994.

Recommended:

Any Autodesk Inventor reference material

■ Information for Students

(*Information below can be adapted and supplemented as necessary.*)

Note: Please refer to BCIT policy number 5002, Student Regulations Policy, for additional information. Policies are available at http://www.bcit.ca/about/administration/policies.shtml.

Ethics: BCIT assumes that all students attending the institute will follow a high standard of ethics. Incidents of cheating or plagiarism may, therefore, result in a grade of zero for the assignment, quiz, test, exam or project for all parties involved and/or expulsion from the course.

Assignments: Assignments, lab reports or projects must be done on an individual basis unless otherwise specified by the instructor. Late assignments, lab reports or projects will be devalued 10% per day late to a maximum of 3 days late.

Makeup Tests, Exams or Quizzes: There will be **no** makeup tests, exams or quizzes. If you miss a test, exam or quiz, you will receive zero marks. Exceptions may be made for **documented** medical reasons or extenuating circumstances. In such a case, it is the responsibility of the student to inform the instructor **immediately**.

Attendance: The attendance policy as outlined in BCIT Policy 5002 will be enforced. Attendance will be taken at the beginning of each session. Students not present at that time will be recorded as absent.

Illness: If you miss an evaluation such as an assignment, quiz, exam, or project, or you miss 3 or more consecutive days of class, you must provide the department with a BCIT Student Medical Certificate (available at http://www.bcit.ca/admission/downloads.shtml). You may be asked to complete the work that you missed or the course evaluation may be adjusted to reflect the missed component(s).

Attempts: Students must successfully complete a course within a maximum of three attempts. Students with two attempts in a single course must get written permission from the Associate Dean to attempt the course for the third time. Students who have not successfully completed a course within three attempts will not be eligible to graduate from the program.

Advancement: Students who fail three or more courses in a term cannot advance to the next term and may be asked to discontinue from the program.

Course Outline Changes: The material or schedule specified in this course outline may be changed by the instructor. If changes are required, they will be announced in class.

■ Assignment Details

See separate class handouts.

Schedule

Week of/ Number	Outcome/Material Covered	Reference/ Reading	Assignment	Due Date
Oct 9 /Week 1	Lecture: Mechanical Working Drawings, Intro to Inventor, file types Lab: Autodesk Learning Assistant Exercise 1 – Creating a simple parametric part	Inventor Help / Tutorials, Lecture notes		Exercise 1 due Oct. 16
Oct 16 / Week 2	Lecture: Sketching, Constraining, General Dimensions Wednesday Lab: work on exercise 1 for those who need help. Friday Lab Cancelled - TTED Conference	Inventor Help / Tutorials, Lecture notes, ALA unit 3		
Oct 23 / Week 3	Lecture: Features, placed features Lab: Tutorials	Inventor Help / Tutorials, Lecture notes, ALA units 4 & 5		Tutorials due Oct. 30
Oct 30 / Week 4	Lecture: Creating working drawings, assembly drawings Lab: Assignment 1 - Bracket	Inventor Help / Tutorials, Lecture notes, ALA unit 6		Assignment 1 due Nov. 6
Nov 6 / Week 5	Lecture: Review, Randy checks in for 100 hr course Lab: Tutorial on working drawings Assignment 2 – Working drawing of Bracket			
Nov 13 / Week 6	Final Exam (Tentatively scheduled for Tues, Nov. 14 SW3-1920, may be moved to Nov 20 or 21) Lab: Assignment 3			Assignment 2 due before Nov. 14
Nov 20 – Dec 7	4080 Projects course		Assignment 3	Dec. 4