

ENG 1000

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CSEB 1012U

[Content, Summary, Format]

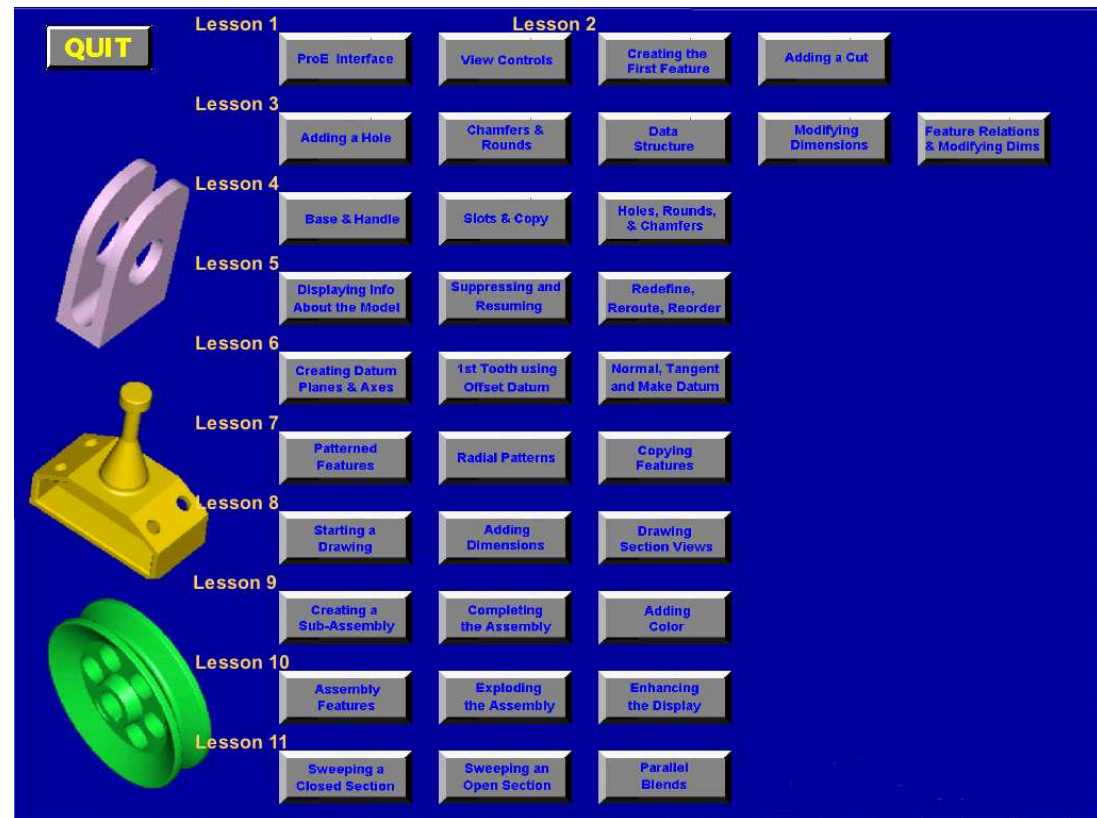
- Introduction to engineering design techniques
 - Conceptualization – 3D CAD with ProE
 - Prototyping, testing – engineering competition
- First half consists of lecture/hands-on sessions with CAD tool – DONE INDIVIDUALLY!!!!
- Second half consists of prototype designing, build, test (competition) – done in teams

[Reading]

- Textbook (required)
 - ProEngineer Wildfire 4.0, Toogood, Roger, (with CD)
- Reference
 - Engineering By Design

[CD Training]

- CD that comes with textbook is a useful reminder of things we will do in class
- Sample parts available from course web site



Software Access

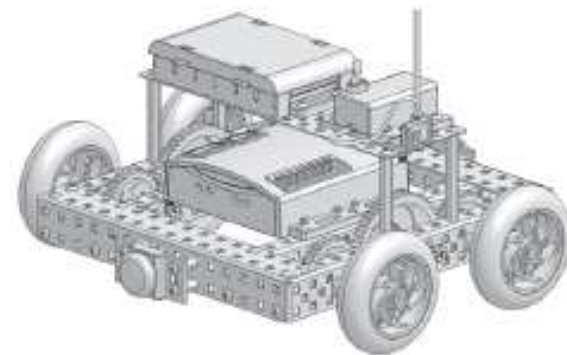
- ProE Wildfire 4.0 has been installed on CSEB, Engineering Lab and ACW 203 computers
 - Requires AcadLabs account (enable using Manage My Services – mms.yorku.ca)
- 24x7 access at home, AirYork via VPN gateway. See course web site for instructions

[ProE Schools Edition]

- York students are eligible to receive a free perpetual license of ProE Schools Edition – appears to include all the modules necessary for ENG 1000
- See <http://www.ptc.com/go/proeforschools> for details
- NOTE: All assignments for ENG 1000 MUST be done in Wildfire 4 (Wildfire 5 is available but is NOT yet installed at York)

[Assignments]

- All based on the Vex robotic platform
- “Squarebot” design
- STEP files of all parts available on course web site



[Rough Course Schedule]

ACW
203

Week	Day	Date	Assignment	Topic/Exercises
1	T	3-Mar		
	R	5-Mar		Intro to ProE, Simple Object Creation (Lessons 1, 2)
2	T	10-Mar		Simple Objects – II, Revolutions, Copies, Rounds, Chamfers (Lessons 3, 4)
	R	12-Mar		Modelling Utilities, Datum Planes and Sketcher Tools (Lessons 5, 6)
3	T	17-Mar	Assignment #1 due	Patterns and Copies, Part Drawings (Lessons 7, 8)
	R	19-Mar		Part Drawings – II
4	T	24-Mar	Assignment #2 due	Assemblies – Fundamentals and Operations (Lessons 9, 10)
	R	26-Mar		Assemblies – II
5	T	31-Mar	Assignment #3 due	Assembly Drawings
	R	2-Apr		Assembly Drawings – II
6	T	7-Apr	Assignment #4 due	Animations
	R	9-Apr		Mechanisms
7	T	14-Apr		Robofest Official Build Season Begins (PSE 020)
	R	16-Apr		

[Rough Course Schedule (Cont'd)]

PSE
020

Week	Day	Date	Assignment	Topic/Exercises
8	T	21-Apr		Robot Design/Build/Test Season
	R	23-Apr	Assignment #5 due	
9	T	28-Apr	Design Reviews	Location TBD
	R	30-Apr	Design Reviews	
10	T	5-May		
	R	7-May		
11	T	12-May		
	R	14-May		Murphy's Cup Competitions – Location TBC
12	T	19-May		Exams
	R	21-May		
13	T	26-May		
	R	28-May	Design Final Report due	

[Course Grading]

Five Assignments each 4%	20%
Design Project – Performance	10%
Design Project – Design Review	5%
Design Project – Final Report	5%
Fall semester mark	35%
Technical Writing	25%
TOTAL	100%

[Use of Moodle]

- Course resources available online through the university's Moodle server
- <http://moodle.yorku.ca>, use your PPY username and password
- First time you log on, you:
 - Scroll down through Course Categories to “Faculty of Science and Engineering Winter”
 - Follow the ENG 1000 link, enter course key when prompted – this will enroll you in the course
- Once you are enrolled, you can check site to
 - Review lecture material
 - Check schedule, due dates, marks
 - Submit assignments
 - Ask course-related questions via the discussion boards