ME 1403 Engineering Practice & Graphics

Spring 2018

Lecture 1

Instructor:

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Outline

- Engineering CAD Software's
- What is Solidworks?
- Text Book
- Rules and Regulations
- Environment
  - Opening Solidworks
  - Introduction to Solidworks Environment
- What kind of Document?
  - Part
  - Assembly
  - Drawing
- Setting up Units and Dimension Standard
  - Drawing Standard (**ISO/ANSI**)
  - Unit System (**MKS/MMGS**)
- Mouse Gestures
- Sketching
  - Plane

Engineering CAD Software's

- Top End Market
  - a. CATIA by Dassault Systems
  - b. NX by Siemens PLM

- Mid level Market
  - a. **SolidWork** by Dassault Systems
  - b. SolidEdge by Siemens PLM
  - c. Inventor by Autodesk
  - d. PTC Creo (Pro-E) by PTC
  - e. Rhino
  - d. IronCAD

- Entry Level Market
  - a. AutoCAD
  - b. Google Sketchup Pro
  - c. DraftSight
  - d. SpaceClaim
  - e. Alibre
  - f. FreeCAD

What is Solidworks?
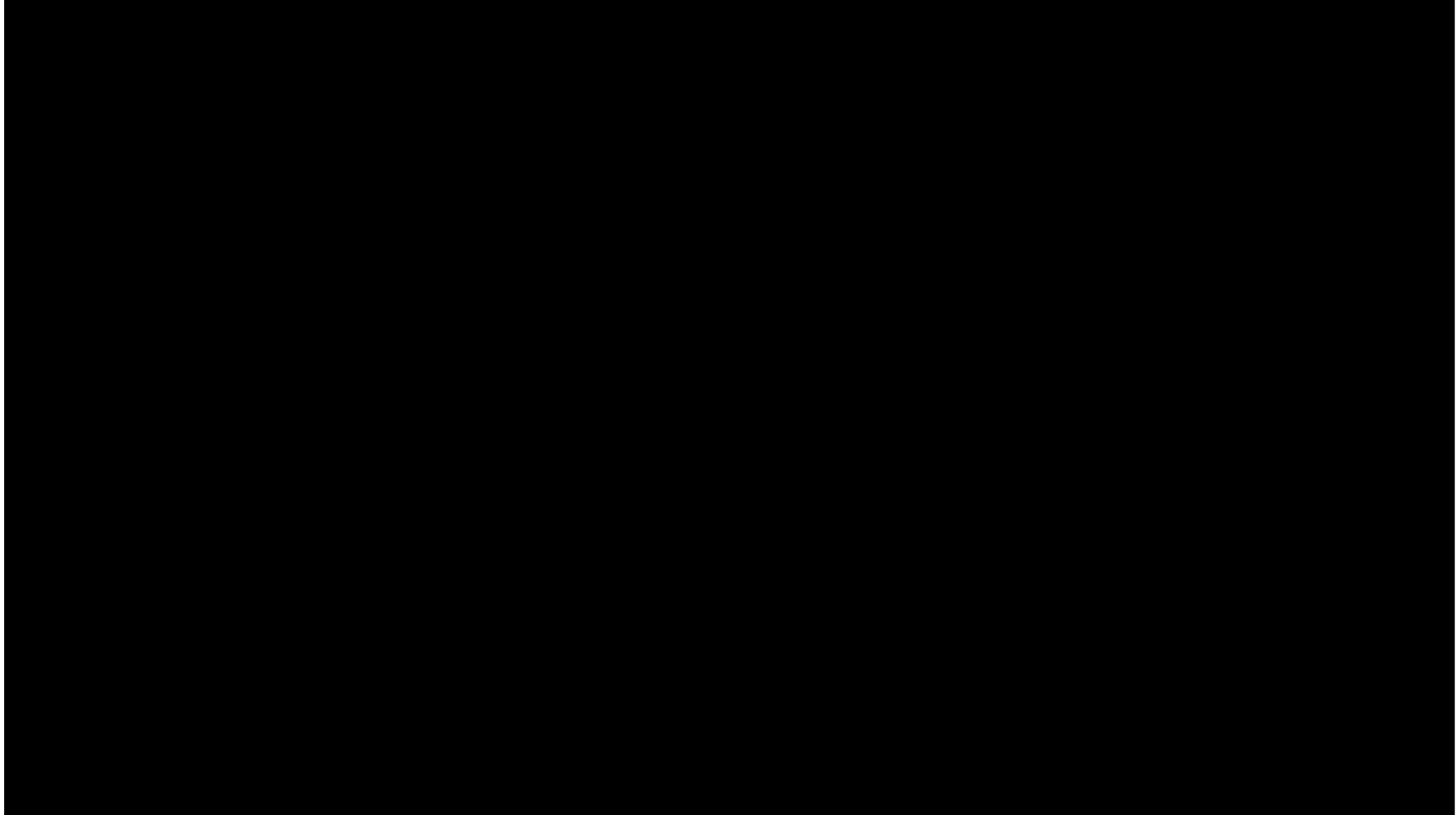
Samples
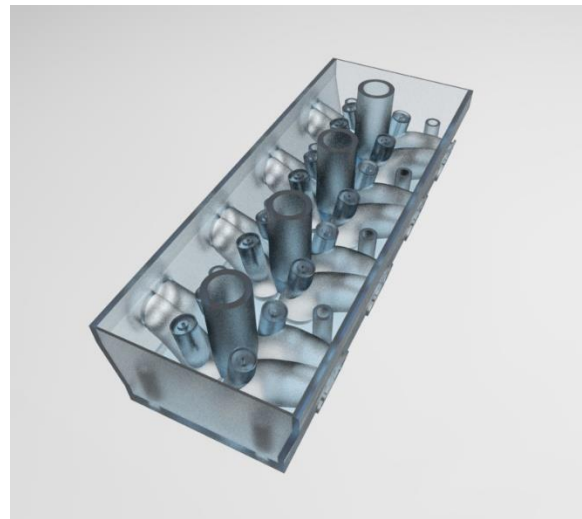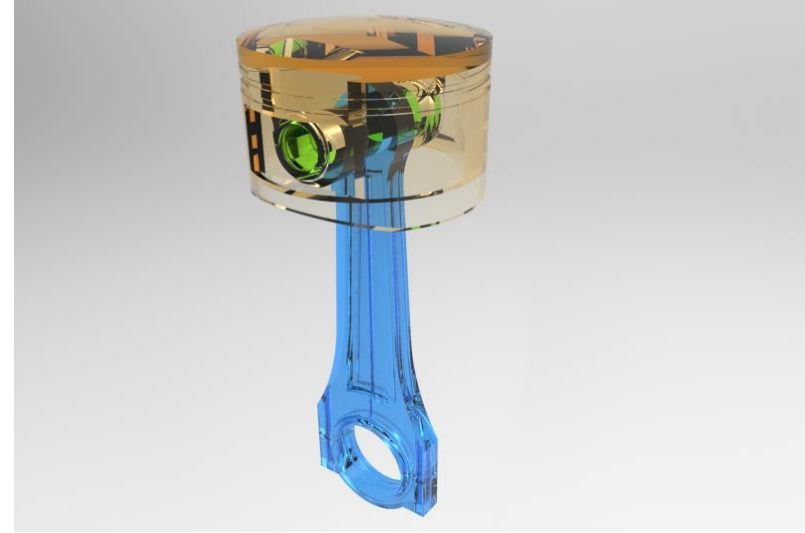
Recommended Textbook

S. Tickoo, ***SolidWorks 2016 for Designers***, 14th ed., 2016, CADCIM Technologies, ISBN: 978-1-942689-18-8.

or

S. Tickoo, ***SolidWorks 2017 for Designers***, 15th ed., 2017, CADCIM Technologies, ISBN: 978-1-942689-75-1.

Lectures will be available at the following link

http://www.shafnehal.com/ME1403/spring_2018/lecture_notes

Submission Rules

- Homework's are due **at the** <mark>**Monday 11.59 P.M.**</mark> of the following week (*More Discussion on next class*).

- Quiz's will be taken (*More Discussion on later classes*).

- Submit everything via **Blackboard**.

- Copying your assignments are **prohibited**. If you do so, you and the individual you copied from will receive a **grade zero**, plus both of you will be referred for actions as described in the university's policy for academic dishonesty. (Read Section 203 of the Student Code of Conduct 2013-2013 UTSA Information Bulletin.)

Submission Rules

- Any submission after deadline **will not be accepted** and thus will receive a **grade of zero**.

- Grading Criteria for Late Submission:
    - Submission on Time : 100%
    - Submission a week late : 75%
    - Submission two week late : 0%

Submission Rules

- Naming Convention for your submission files:
  - *(section)_(your myUTSA id)_(Number/Name of the HomeWork)*

- For Example if your in section, "*L1*", your myUTSA id is, "*abc123*" and You are submitting, "*HW1*". Then your submission file name should be, "*L1_abc123_HW1*"

Emailing Regarding Problems

- Email either
  - through **Blackboard**
  - or at shafnehal@gmail.com

- Email between: *8:00 A.M. to 5:00 P.M.*

- Subject line should follow the below mentioned convention:

  [ME 1403: Engineering Practice & Graphics Spring - 2018]_(Your myUTSA ID)_(Summery of your Issue)

- For Example if your myUTSA id is "***abc123***" and You are emailing regarding problem in "***HW1***". Then your email subject line should be:

  "**[ME 1403: Engineering Practice & Graphics Spring - 2018]_*abc123_HW1 problem***"

- Any email that doesn't follow the above convention will not be responded.

Most Important Rule of the Class

"Ask Questions!"

CLASS SCHEDULE

	Date	CHAPTERS	IN-CLASS TUTORIALS	Exams
Week 1	Jan 8 – 12			
Week 2	Jan 15 – 20	Chapter 2	Tut: 2, 3, 4, Ex:3	
Week 3	Jan 22 - 27	Chapter 3	Tut: 2, 3 Ex:3	**Quiz 1 (Skatches, Chapter 2,3)**
Week 4	Jan 29 - Feb 3	Chapter 4	Tut: 1, 2 Ex: 1	
Week 5	Feb 5 – 10	Chapter 5	Tut: 1,3	**First Midterm Exam (Chapter 2-4)**
Week 6	Feb 12 – 17	Chapter 6	Tut: 2, 3 Ex:1	
Week 7	Feb 19 - 24	Chapter 7	Tut: 1, 2 Ex: 1	**Quiz 2(Part Design, Chapter 5 & 6)**
Week 8	Feb 26 - Mar 3	Chapter 8	Tut: 1, 3 Ex:3	
Week 9	Mar 5 – 10	Chapter 9	Tut: 2, 3 Ex:2	**Quiz 3 (Part Design, Chapter 7 & 8)**
Week 10	Mar 12 – 17	Spring Break		
Week 11	Mar 19 - 24	Chapter 12	Tut: 1	**Second Midterm Exam (Chapter 5-10)**
Week 12	Mar 26 - 31	Chapter 12	Tut: 2	
Week 13	Apr 2 – 7	Chapter 13	Tut: 1,2 Ex:1	**Quiz 4 (Assembly, Chapter 12 & 13)**
Week 14	Apr 9 – 14	Chapter 14	Tut: 1,2 Ex:1	
Week 15	Apr 16 – 21	Chapter 15	Tut: 1,2 Ex:1	**Final Presentation**
Week 16	Apr 23 - 28	Final Exam: Mon,Tue April 23, 24		

Solidworks

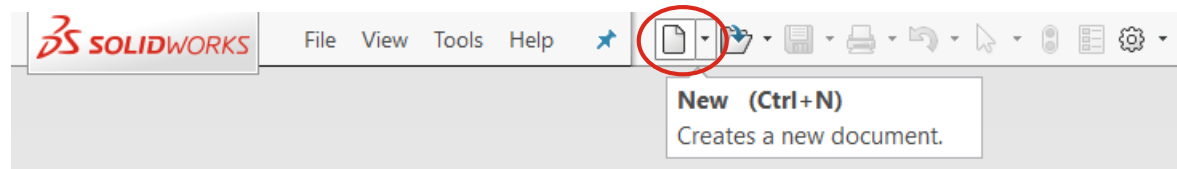- You can get access to Solidworks via-
    - Lab Computers
    - myUTSA apps
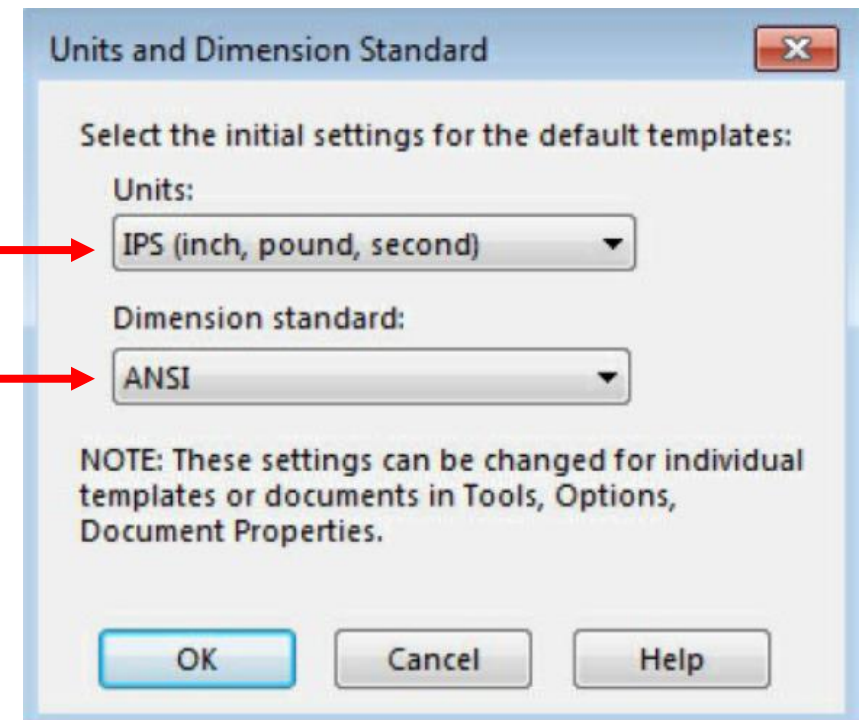   - Follow this pdf file.

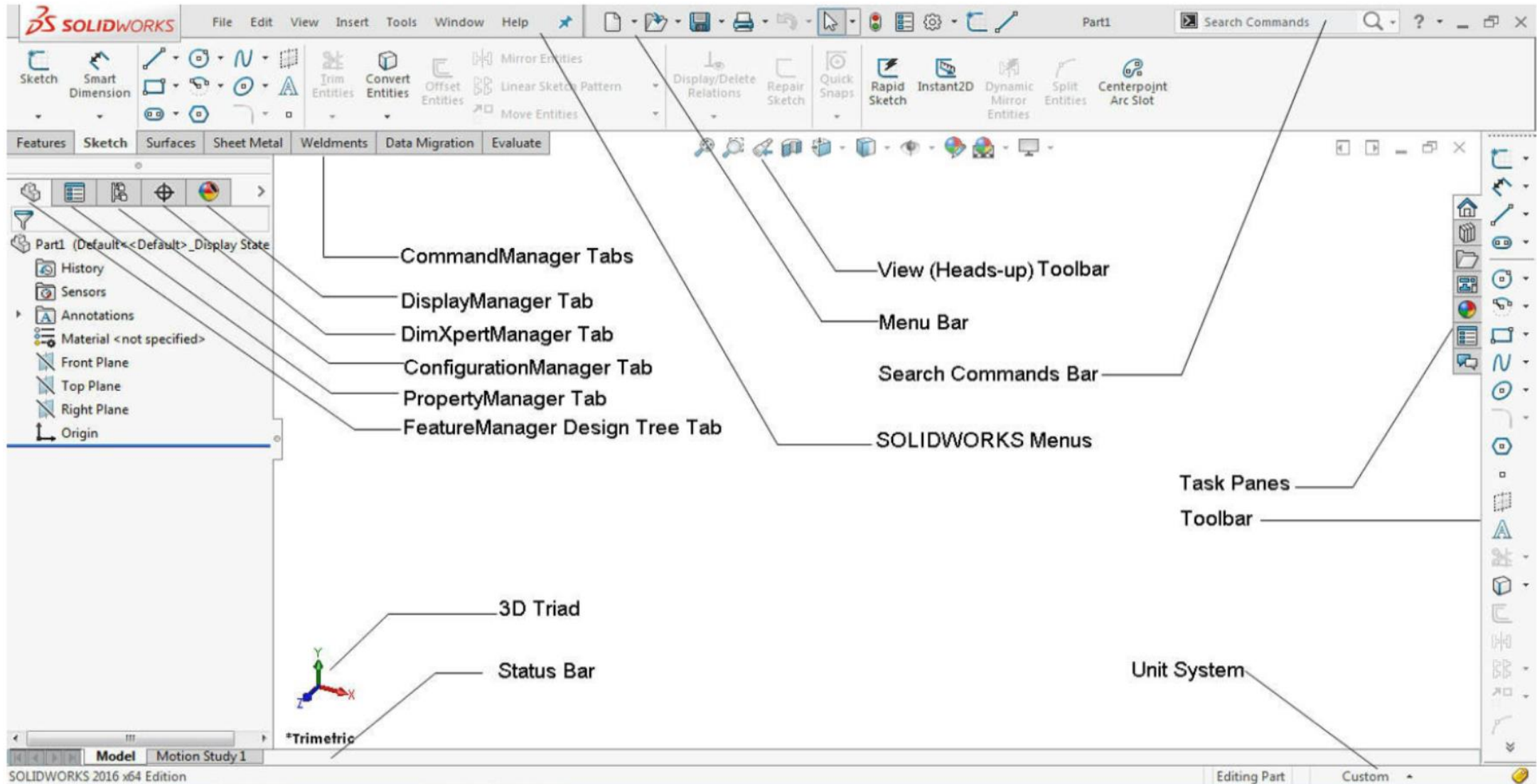# Creating New Documents
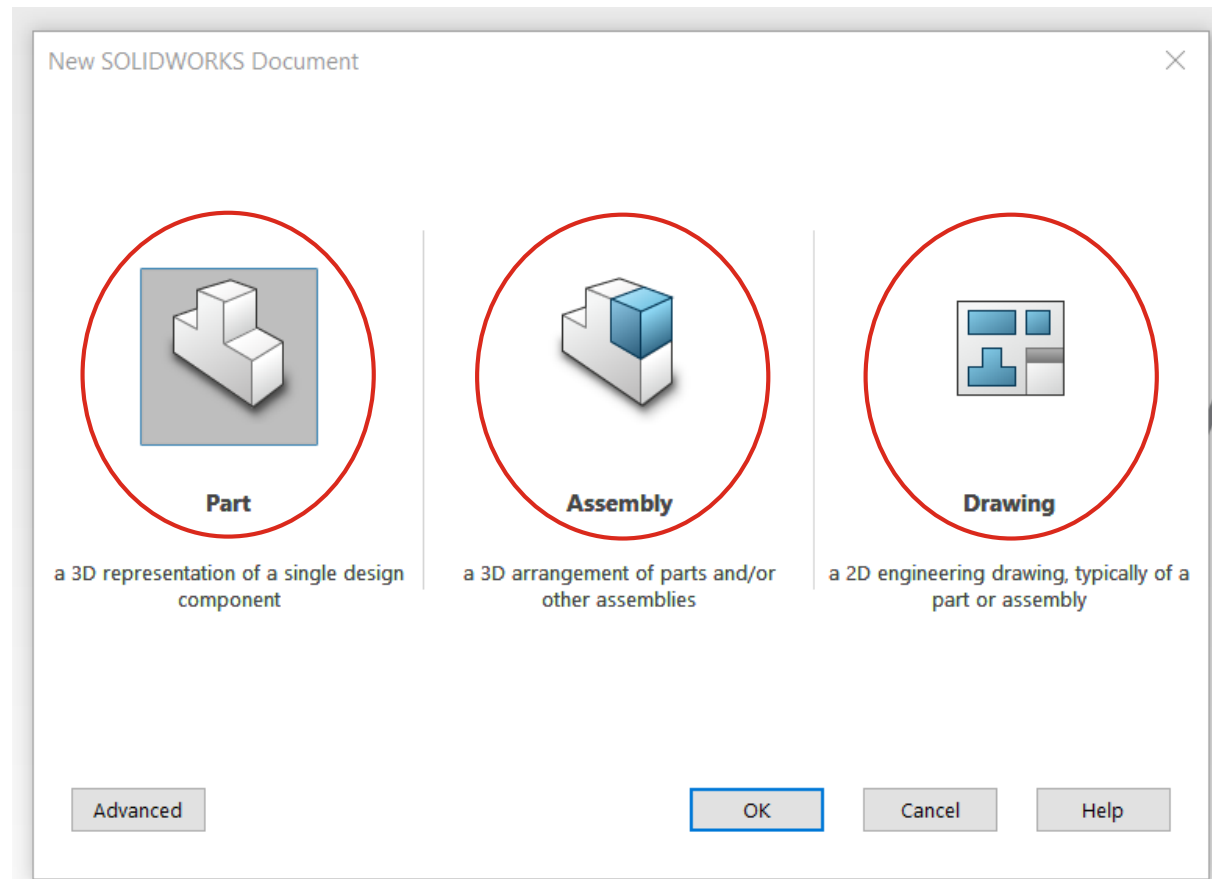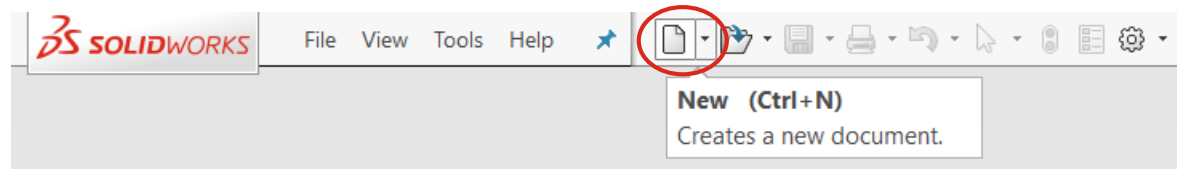
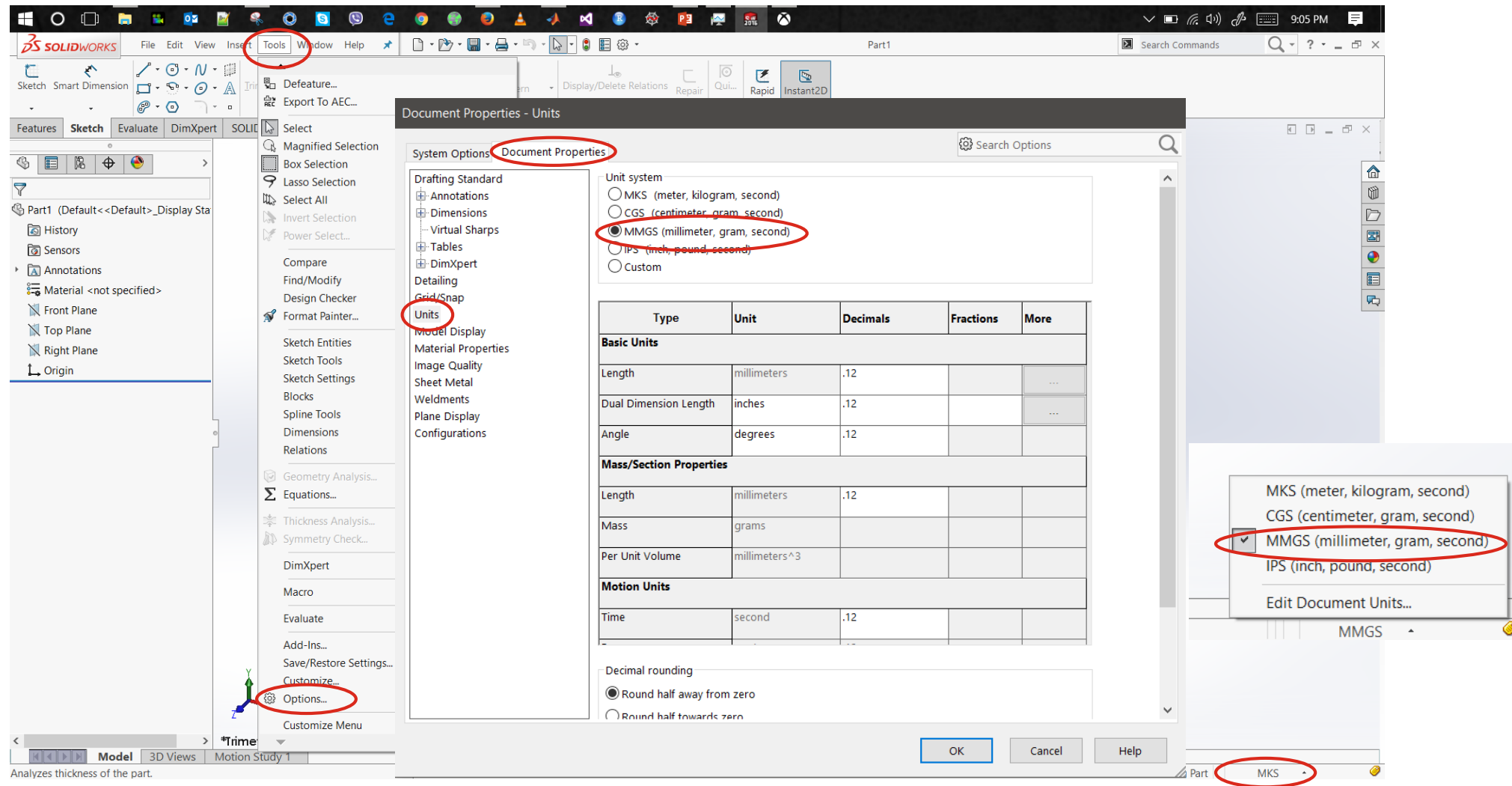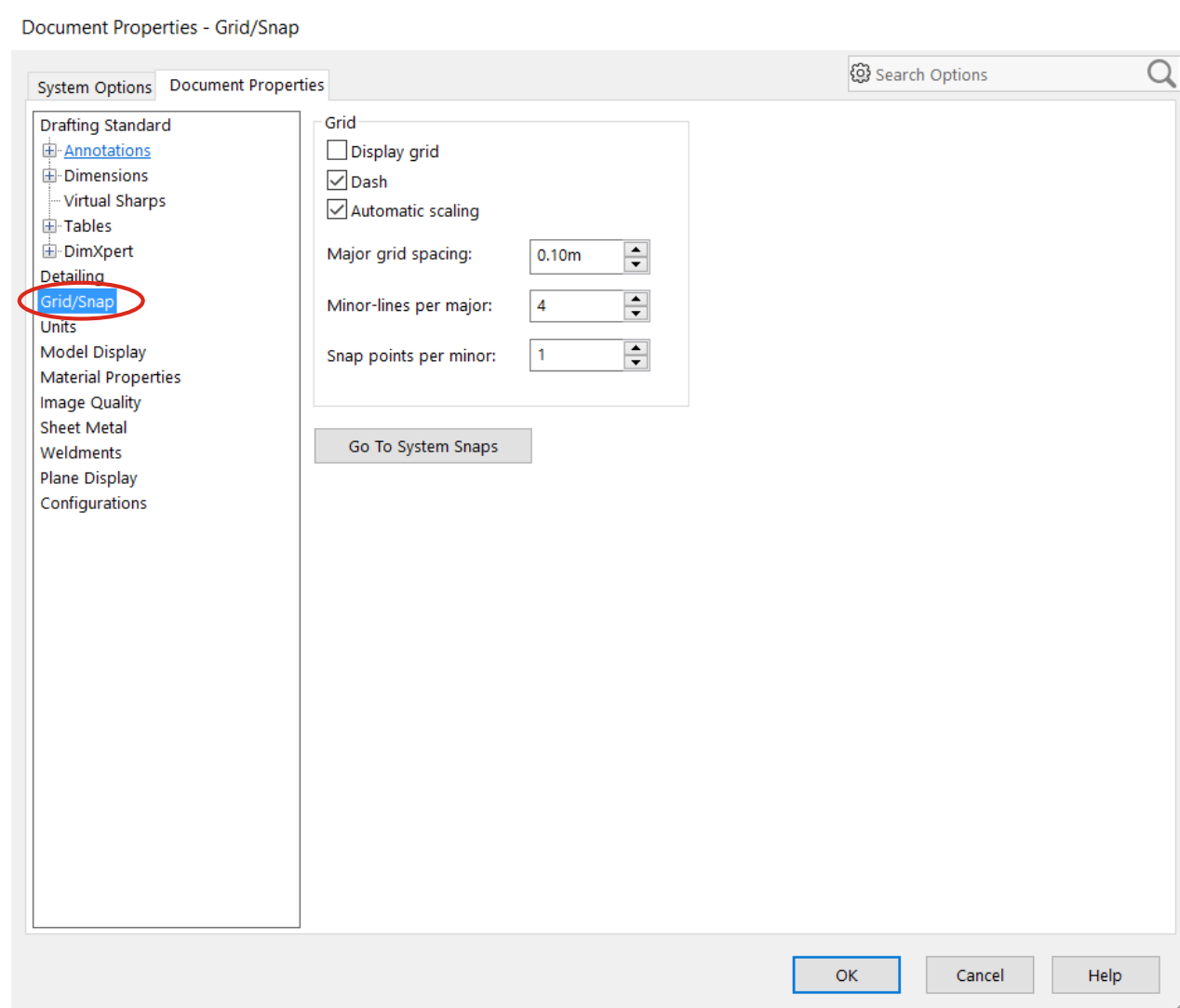# Setting up Units and Dimension Standard
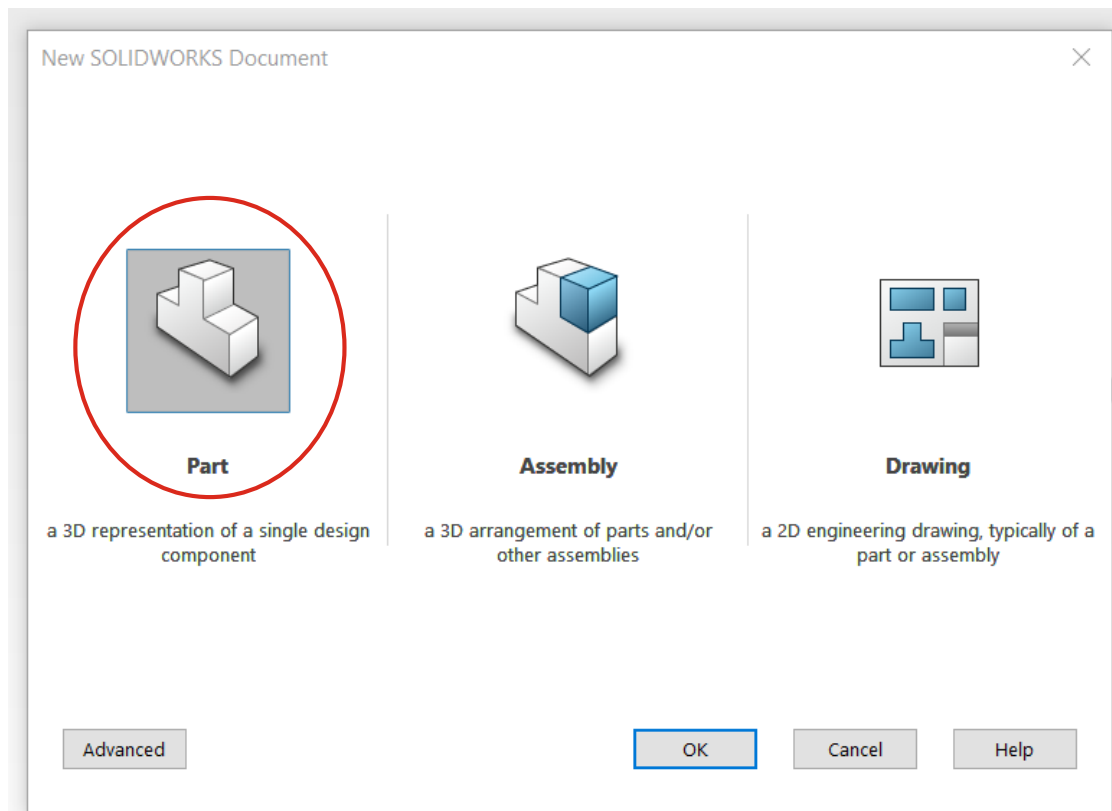
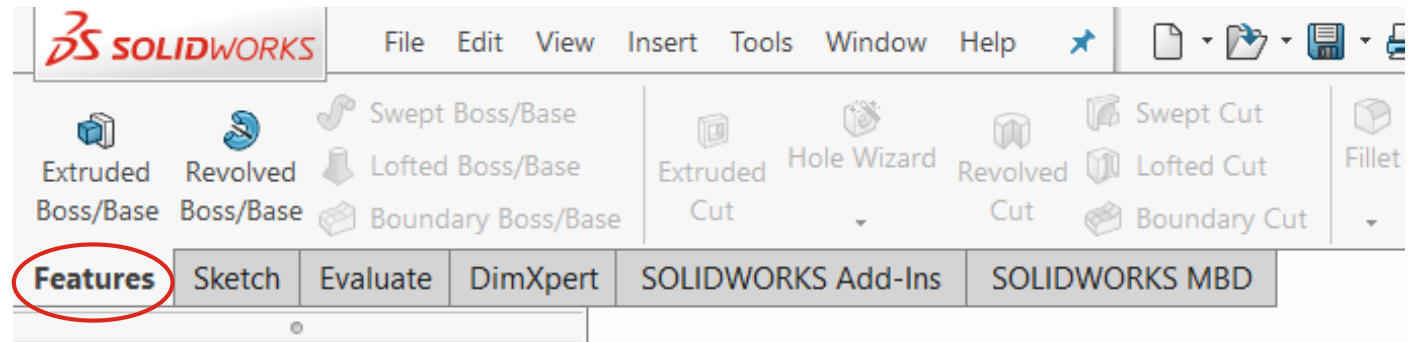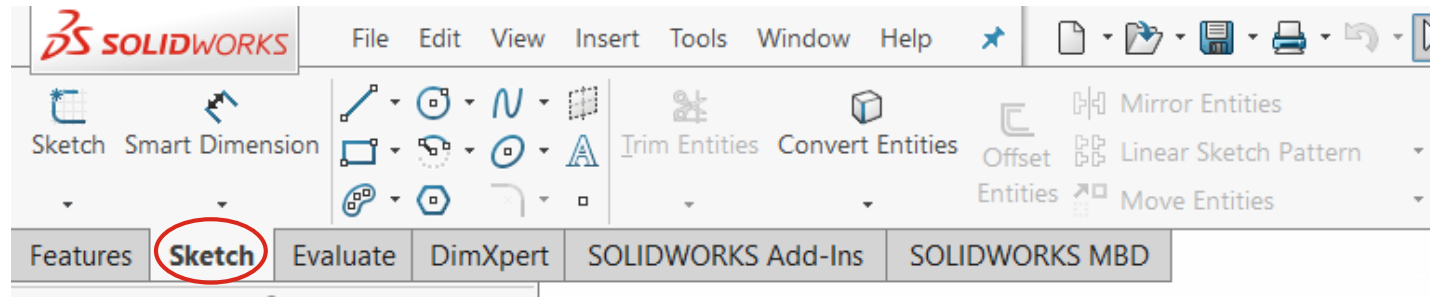# Introduction to Solidworks Environment

Setting up Units and Dimension Standard (cont'd)
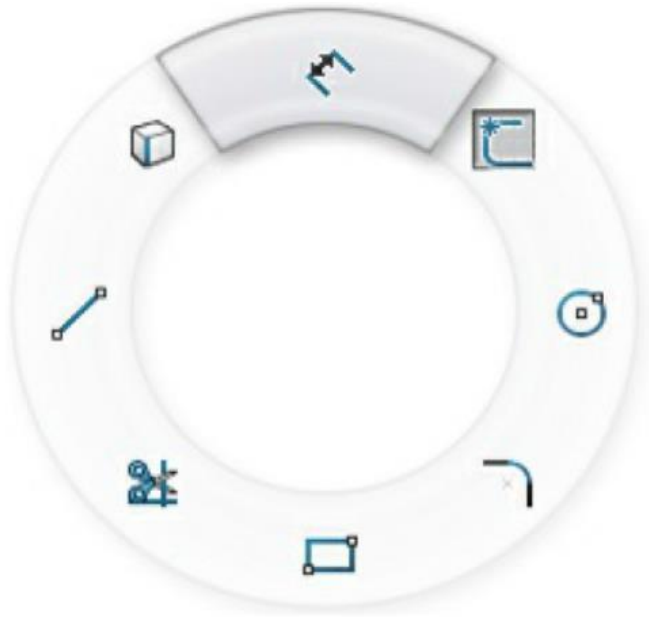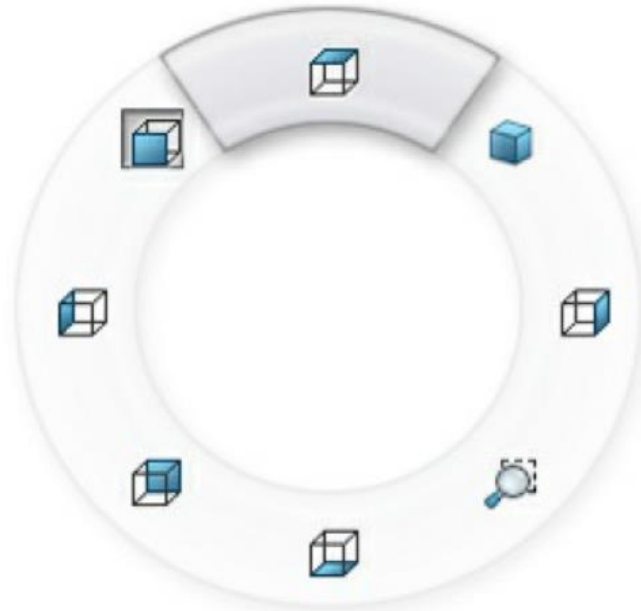
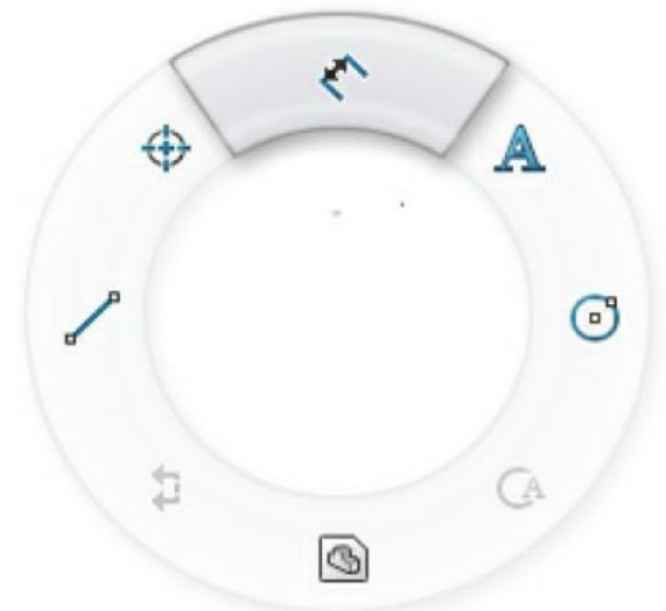# Snap & Grid Setting

User Tabs/Pans

Mouse Gestures

➢ Press the Right Mouse Button
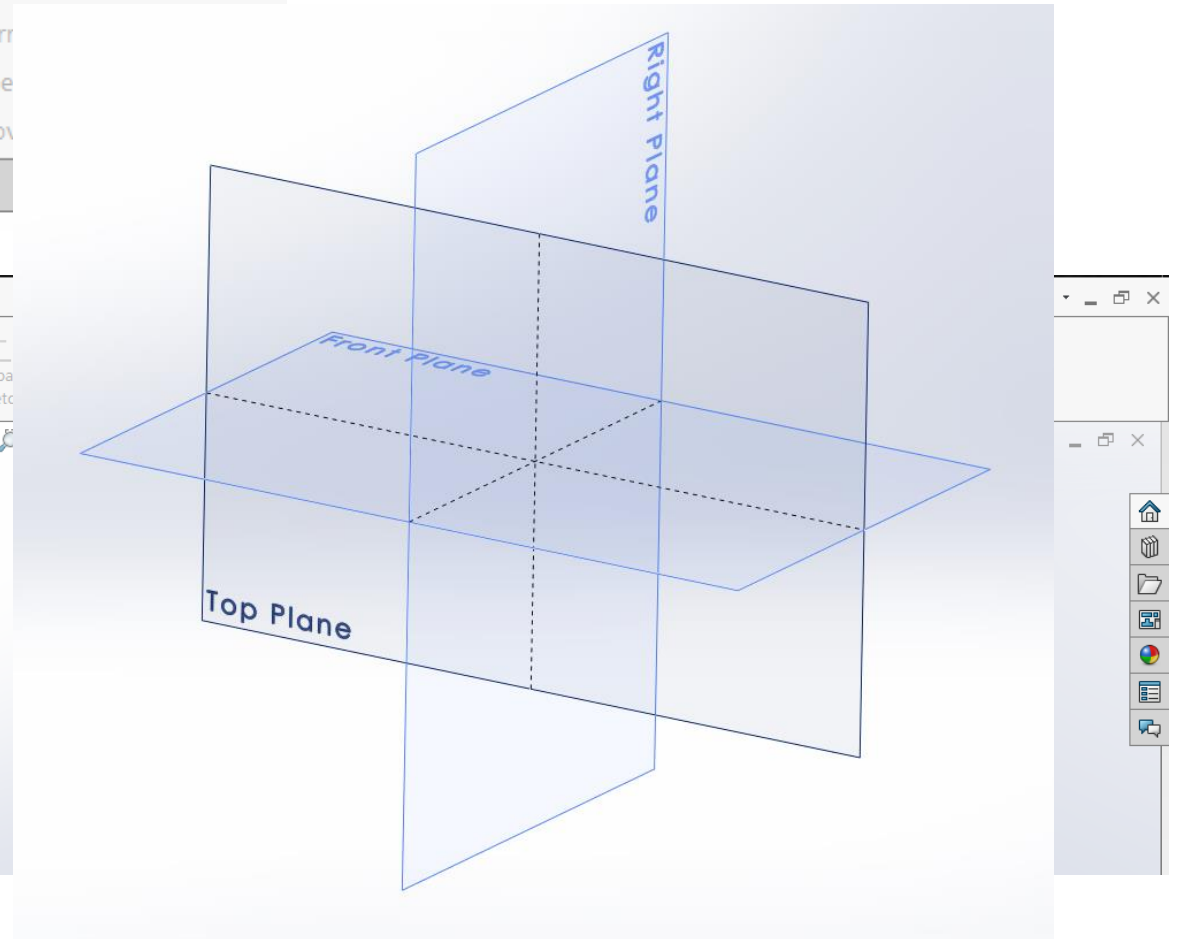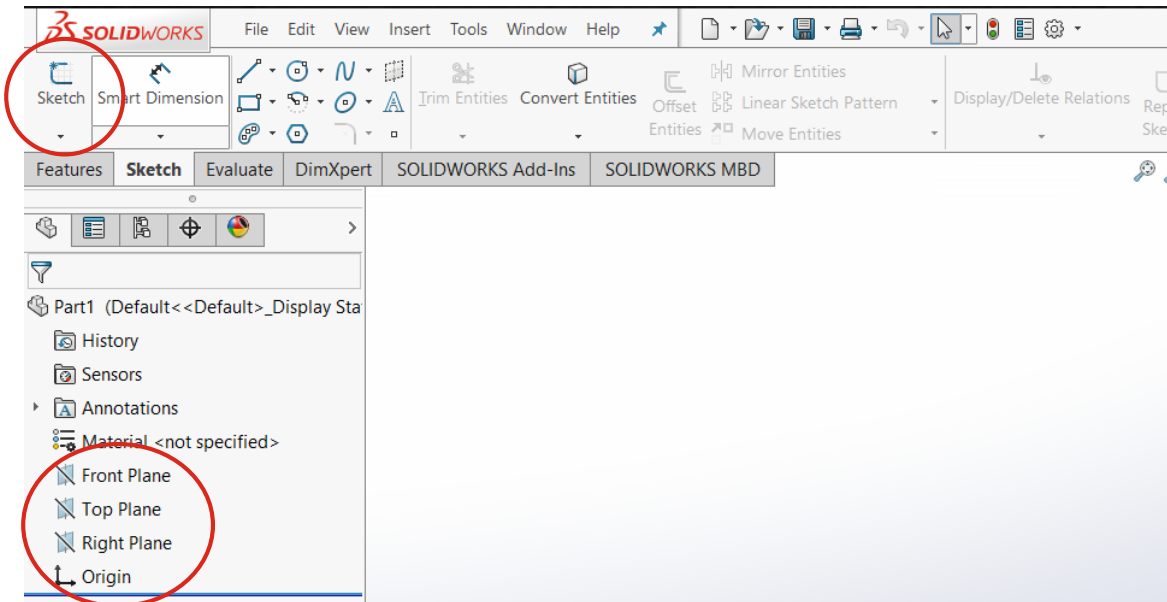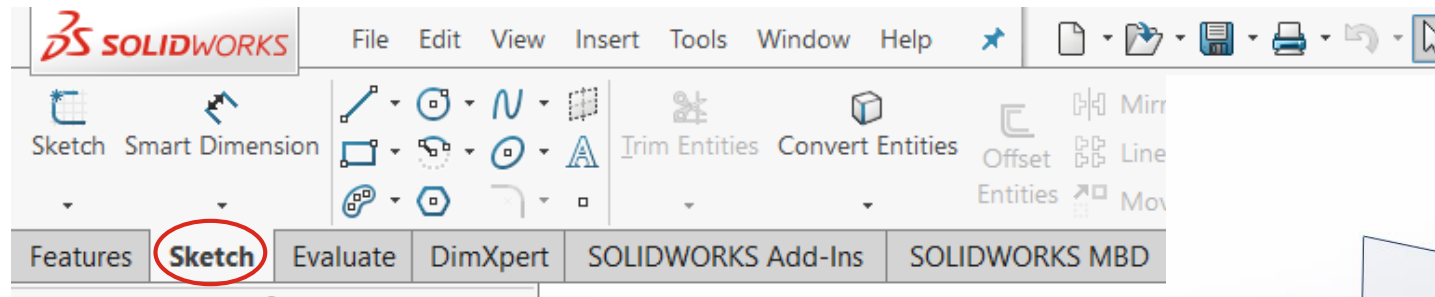➢ Drag the Cursor in any Direction

Sketching

Part

Drawing

Sketching

Practice

- We will do some practices on Next Lecture!