WORKSHOPS CORE LAB
TRAINING
2020 Spring Semester

SOLIDWORKS – Beginner 1,2,3,4

Session 1: Monday, January 27, 2020
Session 2: Wednesday, January 29, 2020
Session 3: Sunday, February 9, 2020
Session 4: Tuesday, February 11, 2020

12.00 p.m. – 3.00 p.m.
KAUST Library computer room, building 12, level 3, room 3134

SolidWorks is an internationally utilized 3D modelling Program, and is the main 3D modelling software used by KAUST engineers, researchers, and students. Currently, it is one of the most widely-recognized 3D modelling programs for design in the world. SolidWorks delivers robust, 3D design capabilities. Its user-friendly interface is easy to operate. It is capable of designing detailed components and assemblies, and of creating professional, standard drawings, which include key dimensions, materials & tolerances. These will update automatically if a change is made on the linked 3D model design.

The course, run by the Core Labs Central Workshops, will be divided into 4 three-hour sessions. Those attending will learn the concepts of 3D modelling, and the skills necessary to fully utilize the SolidWorks interface. There will also be tasks handed out at the end of each session, enabling attendees practice the tools/skills covered.

The topics covered during the 4 Sessions will be:

- A tour of the user-interface
- An explanation of SolidWorks file management
- A quick explanation of the concept of 3D modelling & benefits vs. traditional 2D drawing
- Sketching in SolidWorks & a full demonstration of all SolidWorks sketch entities & tools
- Using planes & creating additional planes
- Using relations for efficient sketching
- Creating 3D models – tools: extrude boss/base, revolve boss/base, loft boss/base, and sweep boss/base, extrude cut, revolve cut, lofted cut and swept cut
- Using cosmetic tools – chamfer & fillet tools, wrap tool i.e. for text or logos on surfaces
- Using patterning/mirroring tools in component Design
- Using the hole wizard for metric, imperial & other threads/hole standards
- Using basic assembly tools including using the SolidWorks design library toolbox for screws, nuts and washers, etc.
- Using patterning tools in assembly: circular, linear & mirroring
- Creating drawings from solid models to international standards
- Dimensioning drawings to ANSI, ISO & GD&T standards
- Including bill of materials of drawings for assemblies

Who is it for?
These sessions are aimed at students, researchers, scientists, and engineers who want to learn how to use the SolidWorks Program to design components, assemblies, and experimental apparatuses for their research.

Register now!
Please register in a timely manner as seating is limited. For registration and further information, please contact Tayyab.Mubeen@kaust.edu.sa or milan.maity@kaust.edu.sa.