

Loyalist College Skills Competition (LCSC)

Mechanical CAD – Secondary Level

Purpose of the Contest

The Loyalist College Skills Competition aims to provide secondary-level students with an opportunity to demonstrate and enhance their skills and knowledge in Mechanical CAD through comprehensive parametric 3D modeling. This contest is designed to challenge participants and prepare them for careers in technology and engineering.

Skills and Knowledge to be Tested

Participants will be evaluated on their ability to:

- Interpret Technical Drawings: Understand and interpret technical drawings used to detail mechanical components effectively.
- 3D Parametric Modeling: Create accurate 3D parametric models, assemblies, presentations, animations, and renderings.
- 2D Technical Drawings: Develop detailed 2D technical drawings using Autodesk Fusion or Autodesk Inventor.
- Annotation: Annotate technical drawings with dimensions, leaders, hole notes, threads, balloons, parts lists, center marks, and notes.
- Exporting Files: Export final layouts as .PDF files.

Equipment and Materials

Supplied by the Committee

- Personal Computer: Equipped with necessary tools and software for the competition.
- Autodesk Professional Product Suite: Essential software provided for creating models and drawings.

Supplied by the Competitor

- Safety Shoes: Required for safe participation in the competition.
- Safety Glasses: Mandatory for eye protection during all competition activities.

Safety

Safety is the utmost priority at Loyalist College. Any competitor not adhering to safety codes or lacking appropriate safety gear may be removed from the competition at the discretion of the judges and technical support team.

Rules and Regulations

- Punctuality: Late arrivals will be disqualified to ensure fair competition for all participants.
- Conduct: Disregard for safety, fellow competitors, or equipment will result in disqualification.
- Permitted Equipment: Use of unauthorized equipment or materials is prohibited and will lead to disqualification.
- Integrity: Dishonesty or cheating will not be tolerated, leading to immediate disqualification.
- Logo Restrictions: Competitors may only wear school or school board logos.

Additional Information

For further details, competitors can refer to the following resources:

- [Skills Ontario Scope](#)
- [Practice Files](#)
- Alternate Software Requests: For alternate software or personal computer use, please contact JBraithwaite@loyalistcollege.com.