



# American Injection Molding Institute

## Autodesk® Simulation Moldflow® Insight Advanced Cool & Warp-Course Overview

Course Outline - Autodesk Simulation Moldflow Insight- Advanced Cool & Warp



**Core Shift Analysis:** Learn how to prepare for, run and interpret the results of a core shift analysis.

**Fiber Flow Analysis:** Learn about a fill and pack analysis for fiber filled materials. Why and when to do a fiber flow analysis.

**Cooling Overview:** An overview of the importance of cooling and review the basic concepts of cooling injection molds.

**Cooling Results Interpretation:** The objectives of a cooling study and how different results can be interpreted.

**Cooling Analysis Modeling Requirements:** Learn about what can be modeled for cooling and how the mesh quality influences the analysis.

**Modeling Cooling Components:** Learn how to model the various features available in a cooling analysis.

**Cooling Analysis Strategies:** Learn when and how to use the automatic and specified cooling analysis options.

**Cooling Optimization:** Solve a mold cooling problem by modifying an existing cooling system with your design modifications

**Warpage Overview:** An overview of the causes of warpage and shrinkage models used in the simulation.

**Design Influences on Warpage:** Discusses the contributions to warpage with respect to part design, mold design, processing conditions, and materials.

**Warpage Analysis Process:** Discusses the procedure for running a warpage analysis and how it is related to cooling, filling, and packing.

**Determine the Magnitude of Warpage:** Discusses the procedure for determining how much the part will warp. It discusses the differences between midplane, Dual Domain and 3D meshes.

**Determine the Cause of Warpage:** Discusses how to determine if the major cause of warpage is differential cooling, differential shrinkage, orientation effects, or corner effects and how the procedure is dependent on mesh type.

**Reducing warpage:** Discusses the diagnostic results that can help you understand the causes of warpage and the procedure used to solve warpage problems

**Duration:** 3 days

**Who should attend?** Users of Autodesk Simulation Moldflow Insight

**Students must complete the Fundamentals and Advance Flow courses prior to attending this course.**

**What will you learn?**

- Setup & run a core deflection analysis, cooling analysis, warpage analysis & interpret the results
- Techniques for solving warpage problems



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