



# Case Study



Aging Workforce



Thousands of Employees Worldwide



Technology Advancements

## Structured Training Program Addresses Skills Gap



### MOTION AND CONTROL TECHNOLOGIES AND SYSTEMS MANUFACTURER

An industrial and aerospace company that was founded in 1917, and now has thousands of employees worldwide, recognized that much of its workforce is near retirement — and that when those employees go, so will years of manufacturing experience. In addition, the company recognized that new manufacturing technologies are advancing at a fast rate.



### CHALLENGE

Due to a skills gap brought on by retirements and technology advancements, the company — a global leader in motion and control technologies — needed structured workforce training in three strategic areas: lean manufacturing, operations and manufacturing engineering.



The company established a two-year manufacturing leadership development program to provide five to 10 years' worth of work experience in two years. Featuring online training from Tooling U-SME, the program focuses on filling skills gaps in the areas of lean manufacturing, operations and manufacturing engineering. Geared toward high-potential engineers who are fresh out of school, the structured program has provided extensive leadership and manufacturing training to 30-50 employees per year since 2017.

## How It Works

Program members develop their manufacturing talent with extensive training and a personal capstone project. In addition, they get a broad company overview and varied work experiences by rotating to a different facility every six months.

The program is conducted on a local level by a human resources representative and an engineering mentor, and is overseen by an executive vice president. Weekly, monthly, quarterly and yearly tracking of project progress ensures that learning and focus continue, and that participants don't get stuck in a rut.

When participants complete the two-year course, they are assigned to permanent positions.

## Capstone Projects

Program participants are assigned to capstone projects focused on lean manufacturing, operations or manufacturing engineering — the company's three pre-identified strategic areas. For example, the capstone project in the lean manufacturing program might involve redesigning manufacturing cells to save time, movements, scrap or rework. Meanwhile, the capstone project for participants in the company's operations or manufacturing engineering programs might focus on automation or flow of materials on the plant floor. No matter the focus area, all capstone projects involve stretch goals, continuous improvement and timely completion.

## Advanced Learning Center

As part of the leadership development program, participants spend six months in the company's advanced manufacturing learning and development center, where the company conducts research and development on the latest manufacturing techniques. Company personnel and Tooling U-SME representatives teach 20 advanced manufacturing courses, and classroom and hands-on learning take place on polymer and metal additive manufacturing machines, robots, vision systems and augmented reality systems.

## Other Training

All company employees receive formal training in lean manufacturing, kaizen, karakuri and high-performance teaming, and all receive Six Sigma Green Belt certification. Coursework is overseen by the company's learning and development center, and taught internally or by strategic partners such as Tooling U-SME. All employees, including manufacturing leadership associates, are reviewed quarterly within the company's talent management system.



Geared toward high-potential engineers, fresh out of school.



30-50 employees successfully complete the training annually.

**Training programs focus on filling skills gaps in the areas of lean manufacturing, operations and manufacturing engineering.**



At the end of the two-year leadership program, participants present their projects to the company's C-level executive officers, demonstrating their level of knowledge. While total expertise may not be the end result 100% of the time, participants gain enough knowledge to converse intelligently about the subject at hand, and to know the areas in which they need to learn more.

According to the company's engineering manager, it's likely that employees who have completed the two-year program know more about the latest manufacturing technologies than their peers who have many years of experience.

The end result for the company? A quicker return on investment.

To find out how Tooling U-SME can help your company train people faster and better, call 866.706.8665 or email [info@toolingu.com](mailto:info@toolingu.com).



Manufacturing leadership development provides five to 10 years' worth of work experience in two years.

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