INTRODUCTION

The rapid pace of change in technology and the global marketplace have created a new corporate environment. Companies are seeking leaders to develop synergies between employees and partners for creating new business opportunities and for significantly improving productivity while reducing costs. The Master in Lean Manufacturing (LM) program of Department of Mechanical Engineering, PSG College of Technology, Coimbatore provides a technical alternative to an MBA with active industry involvement and a targeted focus on operations. It is the only full-time program of its kind in India. Its mission is to graduate individuals with integrated skills in engineering, management and leadership, who are specialized in manufacturing, supply chain and logistics operations. The program aims to provide students with the tools necessary for dealing with the changing demands of the global economy.

LM was formulated as a partnership between PSG College of Technology Faculty of Engineering and Management and Industry Partners. A key feature of the program is industry participation and interaction. To ensure a profound comprehension of the issues and challenges facing business today, case studies, plant tours, seminars, industrial projects and internships are provided by partners. The major emphasis of these professionally-oriented activities is on improving productivity and operational effectiveness.

GRADUATE PROFILE

Strong undergraduate engineering background (industrial, mechanical, production, manufacturing, etc.), ideally suited for problem solving

Work experience in various aspects of manufacturing, logistics and supply chain

Professional, results oriented team player with enhanced soft skills

With strong fundamentals in

- All facets of business and management
- Business process flows
- Quantitative modeling, analysis and optimization
- Communication and presentation

And a profound knowledge of

- Production strategies and operations
- Manufacturing technologies and automation
- Logistics and supply chain operations
- Quality systems and management

Trained and highly qualified for

- Analyzing, planning and optimizing manufacturing and supply chain operations, processes and systems.
BENEFITS OF PARTICIPATION IN LM

Students pursuing the LM degree will realize numerous benefits during their studies as well as in their professional life upon graduation. Among others, they will be able to

- Prepare for a leadership role in manufacturing, supply chain and logistics operations
- Obtain specialized education
- Deal directly with industry professionals in a hands-on, practical program and be exposed to the latest in operations innovation
- Implement real-time performance initiatives
- Translate a corporate operations vision into an action plan
- Embark on a path of continuous improvement and lifelong learning.

THE PROGRAM

The LM program is unique for its intensity, industry collaboration, intended skill set. One of only a few similar programs in the world, LM aims to develop individuals with integrated skills in management, engineering and leadership.

Heeding the voice of industry, the program provides a professional, hands-on approach which addresses all major issues relevant to the design, planning and management of operations, manufacturing and supply chain strategies, product and process design, process analysis and management, inventory, quality and capacity management, supply chain design and management, logistics, information technology, organizational relations, marketing and delivery to the customer. The focus is on all facets of supply chain, logistics and manufacturing management.

An important distinguishing feature is the amount of involvement by industry partners who interact with students and faculty throughout the year and provide the vital practical component of LM. In a dynamic collaborative effort, partner companies participate actively by contributing to program design, case studies, seminars, plant tours, workshops, student projects and work terms. By means of direct involvement with industry representatives, LM students have the ability to profoundly comprehend the intricacies of today's operations environment as well as avail themselves of valuable networking opportunities. Those students who demonstrate the skill set required by company recruiters may be placed on the fast track to management status.

CURRICULUM

The LM curriculum is a unique combination of intensive academic and practical studies, which provide the skill set required by corporations with extensive and sophisticated operations. The nineteen academic courses plus the industrial project span a number of categories, each serving a different objective. Together they provide the necessary qualifications for a career in manufacturing and supply chain management.

The courses on general business and management skills encompass business fundamentals, people skills and management, quantitative modeling and optimization. Courses on manufacturing and supply chain operations focus on the development of operations strategies and the management of operations systems. Courses on manufacturing and technology analyze production processes and technologies, issues associated with design and new product introduction and the impact of information technology.

In most of these courses, students have opportunities to work on projects in teams, improve their ability to solve real problems, develop experience with computer systems, and understand the human and environmental factors in management initiatives. Industry courses (seminars, case studies, work terms) are the real-time, practical content offered directly by corporate personnel. Professional development focuses on communication, group work and corporate culture.