

Brief Program Description

The Productivity certificate program is an 8 week online program designed to help students gain the skills and knowledge needed to increase productivity in the manufacturing workplace.

Low productivity of workers is the most significant factor behind delivery slippages in manufacturing industries. In this practical certificate program, students explore strategies for increasing productivity while maintaining high quality standards.

Students complete courses in the following areas:

- 1. Six Sigma**
Lean Six Sigma is a process management method that improves efficiency, reduces waste, and increases quality in business. Process management uses collaborative team effort and statistical analysis to measure and eliminate the root causes of variability and defects rather than guesswork. In this unit, students complete the requirements for a Six Sigma Green Belt designation.
- 2. Lean**
In this unit, participants are introduced to the history of Lean, Lean manufacturing principles, and the 5S approach to workplace organization.
- 3. Quality**
This unit explores quality; quality organizations; roles and responsibilities; ISO 9000; and how these terms apply to manufacturing companies. Students also learn about statistical process control, or SPC, a quality control methodology that uses statistics to predict variation in processes. SPC is widely used by manufacturing companies to help maintain the quality of the products they produce.
- 4. Communication**
Communicating with co-workers, customers and clients is an important part of everyone's work. How well we communicate can impact safety, productivity and success. In this unit, students cover stopics such as: strategies for effective communication, verbal and nonverbal communication, written communication, listening skills and communicating in conflict situations.



5. **Customer Service**
Effective customer service skills can boost productivity. In this unit, students learn about topics such as identifying and meeting customer needs, building customer relationships, respecting diversity in your customers, dealing with difficult customers, responding to customer complaints and how to handle dangerous workplace situations.
6. **Microsoft Skills**
Excel is a powerful software tool for organizing and analyzing data. It is widely used by businesses to work with data. In this unit, students learn how to use Excel to enter text, build tables, prepare formulas and display data in charts.
7. **Time Management**
In this unit, students focus on getting organized by exploring strategies used for managing time and schedules.
8. **Team Building Skills**
Most employers agree that good employees have more than just technical skills. This unit focuses on the teamwork skills workers need, such as: effective collaboration strategies, meetings, problem solving and conflict management.

Upon successful completion of the program, students receive a Productivity certificate.

Career Occupation

Manufacturing Technician (NOC 9619)

Hiring Industries

- automotive
- aerospace
- civil infrastructure
- consumer products
- construction
- electrical equipment
- marine
- materials processing
- military

Admission Requirements

Minimum Canadian Language Benchmark (CLB) 7 or equivalent

Program Prerequisites

none

Learning Objectives

Upon successful completion of this program, the learner will be able to:

- demonstrate the competencies of a Six Sigma Green Belt
- demonstrate Lean productivity skills
- demonstrate increased productivity by using improved strategies for teamwork, communication and time management
- identify quality standards

Teaching Methods

Instruction is delivered through a series of asynchronous interactive online courses. Each course is comprised of a number of modules that students must master before they are able to proceed to the next module or course.

Method(s) of Student Evaluation

Students must demonstrate mastery (a score of 100% on quizzes) for each course. Student success is measured through the successful completion of all courses in the program.

Completion Requirements

Students must:

- complete all of the courses listed in the Productivity program outline
- demonstrate mastery of all course modules

Required Program Materials

This program requires:
internet access using either:

- Google Chrome
- Mozilla Firefox
- Internet Explorer

Headphones

Program Duration

2 months completing 3 modules a day (122 hours)

Homework Hours

none, all work is completed online

Delivery Methods

Indicate how the course is delivered:

- In-class instruction*
 Distance education (online)
 Combined delivery (both in-class and distance)

Program Organization

STUDY SKILLS COURSES		
	180 SKILLS ORIENTATION	
X	STU-1001 Greatest Day Ever	0.1
	USING A LEARNING MANAGEMENT SYSTEM	
X	STU-1002 How to Take a Course	0.1
X	STU-1003 How to Navigate the LMS	0.1
	LEARNING ONLINE	
X	STU-1004 Tips for Succeeding in Online Learning	0.1
COMMUNICATION SKILLS COURSES		
	INTERPERSONAL COMMUNICATION	
X	COM-1001 Introduction to Communication	0.9
X	COM-1002 Effective Communication	0.9
X	COM-1003 Verbal Communication	1.0
X	COM-1004 Written Communication	0.9
X	COM-1005 Nonverbal Communication	0.7
X	COM-1006 Listening Skills	1.0
X	COM-1007 Workplace Communication	0.8
	CONFLICT RESOLUTION	
X	COM-2001 Understanding Conflict	2.0
X	COM-2002 Communication Skills	1.8
X	COM-2003 Managing Conflict	2.3
	TECHNICAL WRITING	
X	COM-2004 Introduction to Technical Writing	1.1
X	COM-2005 Successful Documentation	1.1
CUSTOMER SERVICE SKILLS COURSES		
	CUSTOMER SERVICE	
X	CUS-1001 Focusing on Your Customers	0.7
X	CUS-1002 Providing Friendly, Courteous, and Efficient Service	1.4
X	CUS-1003 Communicating Effectively with Customers	1.1
X	CUS-1004 Identifying and Meeting Customer Needs	1.1
X	CUS-1005 Building Customer Relationships	1.4

X	CUS-1006 Respecting Diversity in Your Customers	1.0
X	CUS-1007 Better Serving Customers with Disabilities	0.9
X	CUS-1008 Dealing with Difficult Customers	0.9
X	CUS-1009 Responding to Customer Complaints	1.1
X	CUS-1010 Managing Conflict with Internal Customers	0.9
X	CUS-1011 Handling Dangerous Workplace Situations	0.9
X	CUS-1012 Coping with On-The-Job Stress	0.9
MICROSOFT SKILLS COURSES		
MICROSOFT EXCEL		
X	MSO-1001 Getting Started with Excel	1.3
X	MSO-1002 Entering Text and Values	1.5
X	MSO-1003 Formatting Data	1.8
X	MSO-1004 Formulas and Functions	1.7
X	MSO-1005 Working with Dates and Times	1.3
X	MSO-1006 Working with Data Tables	1.6
X	MSO-1007 Displaying Data in Charts	1.4
X	MSO-1008 Printing a Worksheet	1.5
TEAM BUILDING SKILLS COURSES		
GROUP DYNAMICS		
X	TEA-1001 Working in a Group	0.7
X	TEA-1002 Group Communication	0.9
X	TEA-1003 Effective Collaboration	0.8
X	TEA-1004 Life Stages of a Team	0.9
X	TEA-1005 Meetings	0.8
X	TEA-1006 Diversity	0.9
X	TEA-1007 Creativity	0.8
X	TEA-1008 Problem-Solving	1.0
X	TEA-1009 Decision-Making	1.0
X	TEA-1010 Conflict Management	1.4
X	TEA-1011 Leadership	0.8
X	TEA-1012 Virtual Groups	1.0
BUILDING EFFECTIVE TEAMS		
X	TEA-1013 Teamwork	1.5

X	TEA-1014 Team Building	0.9
	TEAMWORK AND TRAINING	
X	TEA-1015 Team Development	1.2
X	TEA-1016 Team Problem Solving	1.1
X	TEA-1017 Training and Development	1.0
TIME MANAGEMENT SKILLS COURSES		
	TIME MANAGEMENT	
X	TIM-1001 Managing Your Time	0.9
X	TIM-1002 Identifying Your Life Goals	0.9
X	TIM-1003 Making a List and Checking It Twice	0.8
X	TIM-1004 Planning Your Day	1.0
X	TIM-1005 Adopting Timesaving Strategies	0.8
X	TIM-1006 Getting Organized	0.8
X	TIM-1007 Ending Procrastination	0.8
X	TIM-1008 Taking Advantage of Technology	1.0
X	TIM-1009 When Time Gets the Best of You: Dealing with Stress	0.9
LEAN MANUFACTURING SKILLS COURSES		
	LEAN PRINCIPLES	
X	LEA-1001 Lean Principles	1.5
	INTRODUCTION TO LEAN MANUFACTURING	
X	LEA-1002 The History of Lean Manufacturing	0.9
	WORKPLACE ORGANIZATION	
X	LEA-1003 Workplace Organization	1.1
X	LEA-1004 S1: Sort	0.7
X	LEA-1005 S2: Straighten	0.9
X	LEA-1006 S3: Shine	0.8
X	LEA-1007 S4: Standardize	0.7
X	LEA-1008 S5: Sustain	0.7
QUALITY SKILLS COURSES		
	QUALITY SYSTEMS	
X	QUA-1001 Introduction to Quality	1.4
X	QUA-1002 ISO 9000	1.1
X	QUA-1003 Standards Organizations	0.9

X	QUA-1004 Quality Organizations	0.9
X	QUA-1005 Basic Quality Roles and Responsibilities	1.0
	QUALITY MANAGEMENT	
X	QUA-1006 Quality Concepts	0.9
X	QUA-1007 The Cost of Quality	0.9
X	QUA-1008 Managing Quality	1.1
X	QUA-1009 Quality Documents	0.9
X	QUA-1010 Corrective and Preventive Action	0.8
	INTRODUCTION TO STATISTICAL PROCESS CONTROL	
X	QUA-1011 Introduction to SPC	1.0
X	QUA-1012 Probability and Variation	1.8
X	QUA-1013 The Control Chart	1.2
	ADVANCED STATISTICAL PROCESS CONTROL	
X	QUA-2001 Control Chart Analysis	0.9
X	QUA-2002 Process Capability	1.0
X	QUA-2003 Problem Solving Tools	1.1
X	QUA-2004 Problem Solving	0.9
SIX SIGMA SKILLS COURSES		
	SIX SIGMA AND THE ORGANIZATION	
X	SIX-3001 Six Sigma and the Organization	1.9
X	SIX-3002 Lean Principles	1.5
X	SIX-3003 Design for Six-Sigma	1.0
	SIX SIGMA DEFINE	
X	SIX-3004 Process Elements for Projects	1.2
X	SIX-3005 Project Management Basics	1.1
X	SIX-3006 Management and Planning Tools	0.7
X	SIX-3007 Business Results for Improvement Projects	1.1
X	SIX-3008 Project Team Dynamics and Performance	1.3
X	SIX-3009 Problem Solving Tools	1.9
	SIX SIGMA MEASURE	
X	SIX-3010 Process Analysis and Documentation	1.0
X	SIX-3011 Probability and Statistics	2.1
X	SIX-3012 Collecting and Summarizing Data	1.7

X	SIX-3013 Probability Distributions	2.2
X	SIX-3014 Measurement System Analysis	2.5
X	SIX-3015 Process Capability Performance	1.9
	SIX SIGMA ANALYZE	
X	SIX-3016 Exploratory Data Analysis	1.9
X	SIX-3017 Hypotheses Test Basics	1.5
X	SIX-3018 Hypotheses Tests	2.7
	SIX SIGMA IMPROVE AND CONTROL	
X	SIX-3019 Design of Experiments	1.3
X	SIX-3020 SPC	1.7
X	SIX-3021 Implement and Validate	0.8
X	SIX-3022 Control Plans	1.0
	TOTAL HOURS	122