

Basic Machinist

Basic Machinist Technology

Objective: The student will study the fundamentals of mechanical work. The manual will provide a good reference for both the beginner and the expert.

Audience: Machinists, tool makers, die makers, students and engineers using machines in their work or hobbies.

Item Code	Lesson Title
MB.12	Mechanical Drawing
MB.13	Fits and Terminology
MB.14	Bench Work
MB.15	How to Make Measurements
MB.16	Cutting Speed and Cutting Fluids, Drilling and Related Operations
MB.17	Lathe Operations
MB.18	Grinding
MB.19	Metal Sawing
MB.20	Toolmaking
MB.21	Geometry
MB.22	Mechanics

Item Code	Required Textbook
BKMB1BK	<i>The Starret Book for Student Machinists</i> This book not available separately.

Easy Enroll Guide

Item Code	Full Course Title (Includes Textbook)	Price
MB12FC	Basic Machinist Technology	\$ 257.35

Or Choose the Lessons You Want

Textbook Fee	\$ 15.35
Number of Lessons _____ x \$22.00 =	\$ _____
Your Total Cost = (Remember to include textbook fee)	\$ _____

Basic Millwright Work

Objective: This course is intended to be a helpful guide for the practical person solving problems that present themselves from day to day to the millwright and maintenance mechanic in construction and operation of industrial plants.

Audience: Millwrights and maintenance mechanics.

Item Code	Lesson Title
MG.1	Drawing & Sketching
MG.2	Machinery and Equipment Installation
MG.3	Principles of Mechanical Power Transmission and V-Bolt Drives
MG.4	Flat Belts, Gears
MG.5	Chain Drives, Couplings
MG.6	Packings and Seals
MG.7	Bearings, Structural Steel
MG.8	Structural Steel, Screw Threads
MG.9	Fasteners
MG.10	Pipe Fittings
MG.11	Pipe Valves
MG.12	Carpentry (Part 1)
MG.13	Carpentry (Part 2)
MG.14	Sharpening Saws, Wood Fastening
MG.15	Sheet Metal Work and Blacksmithing
MG.16	Rigging (Part 1)
MG.17	Rigging (Part 2)
MG.18	Electricity
MG.19	Welding (Part 1)
MG.20	Welding (Part 2)
MG.21	Pumps
MG.22	Air Compressors
MG.23	Air Compressors
MG.24	Portable Power Tools, Mensuration and Mechanical Calculations

Item Code	Required Textbook
BKMILL	<i>Millwright's Mechanic's Guide</i>

Easy Enroll Guide

Item Code	Full Course Title (Includes Textbook)	Price
MG1FC	Basic Millwright Work	\$ 614.90

Or Choose the Lessons You Want

Textbook Fee	\$ 86.90
Number of Lessons _____ x \$22.00 =	\$ _____
Your Total Cost = (Remember to include textbook fee)	\$ _____

Textbook prices are subject to change.

Machine Shop Practice I

Objective: Understand the fundamentals of the basic machine tools and the technology which supports these operations. Study the basics to make precision parts for tools, dies, machines and instruments for all classes of machine tools.

Audience: Machinists, toolmakers, diemakers, students and engineers can use as a source of information on machining and related technology.

Item Code	Lesson Title
MS.1	Basic Metal Cutting Operations
MS.2	Basic Measuring Instruments
MS.3	Layout Work, Drilling Machines, Twist Drills
MS.4	Drilling Machine Operation
MS.5	Engine Lathe Construction, Single-Point Cutting Tools and Their Performance
MS.6	Cylindrical Drilling
MS.7	Chucking Work, Taper and Angle Turning
MS.8	Faceplate Work, Screw Threads and Screw Thread Measuring
MS.9	Machine Shop Practice-Cutting Screw Threads on a Lathe-Turret Lathes, Production Lathes, and Vertical Lathes
MS.10	Machine Shop Practice-Precision Hole Location, The Jig Borer-Metal Cutting Saws

Item Code	Required Textbook
BKMSI	<i>Machine Shop Practice Vol. I</i>
	This book not available separately.

Easy Enroll Guide

Item Code	Full Course Title (Includes Textbook)	Price
MS1FC	Machine Shop Practice (Volume I)	\$ 258.50

Or Choose the Lessons You Want

Textbook Fee	\$ 38.50
Number of Lessons _____ x \$22.00 =	\$ _____
Your Total Cost = (Remember to include textbook fee)	\$ _____

Machine Shop Practice II

Objective: Build on the basic knowledge learned in Volume I (machining and related technology) through information on the latest techniques of machining and useful tables etc.

Audience: Same as Machine Shop Practice (Volume I).

Item Code	Lesson Title
MS.11	Shaper Construction and Shaper Tools, Shaper Work
MS.12	Planers and Planer Work, Milling, Machine Construction
MS.13	Milling Cutters, Milling Machine Operation
MS.14	Indexing, Dividing Head Work
MS.15	Helical and Cam Milling
MS.16	The Horizontal Boring Machine and Grinding Wheels
MS.17	Cylindrical Grinding, Surface Grinding
MS.18	Cutter and Tool Grinding
MS.19	Numerical Control Machine Tools
MS.20	Surface Plate Work

Item Code	Required Textbook
BKMSII	<i>Machine Shop Practice Vol. II</i>
	This book not available separately.

Easy Enroll Guide

Item Code	Full Course Title (Includes Textbook)	Price
MS11FC	Machine Shop Practice (Volume II)	\$ 258.50

Or Choose the Lessons You Want

Textbook Fee	\$ 38.50
Number of Lessons _____ x \$22.00 =	\$ _____
Your Total Cost = (Remember to include textbook fee)	\$ _____

Basic Principles of Hydraulics

Objective: Explain the basic law of hydraulics (Pascal's Law), the principle by how pumps work, the care and maintenance of hydraulic equipment.

Audience: Students, engineers, maintenance workers or anyone interested in gaining a basic knowledge of hydraulic pumps and the principles upon how they work.

Item Code	Lesson Title
BH.1	Types of Pumps

Item Code	Required Booklet
BKBH1	<i>Basic Principles of Hydraulics - Types of Pumps</i>

Easy Enroll Guide

Item Code	Full Course Title (Includes Booklet)	Price
BH1FC	Basic Principles of Hydraulics	\$ 27.95

Basic Hydraulic Technology

Objective: The beginning student will learn about hydraulics from basic physical concepts of component operation and its application.

Audience: Anyone wishing to learn basic hydraulics, how it works and its various uses.

Item Code	Lesson Title
HD.1A	The Physical World of a Machine and Hydraulic Transmission of Force and Energy
HD.2A	Petroleum Base Hydraulic Fluid and Fire Resistant Hydraulic Fluid
HD.3A	Operation at the Suction Side of Pump and Hydraulic Actuators
HD.4A	Control of Hydraulic Energy and Check Valves, Accumulators and Cylinders
HD.5A	Flow Control Valves and Directional Control Valves
HD.6A	Pressure Control Valves and Pilot Operated Pressure Control Valves
HD.7A	Hydraulic Pumps and Hydraulic Motors

Item Code	Required Textbook
BKHD SUP	<i>Industrial Hydraulic Technology</i>
	This book not available separately.

Easy Enroll Guide

Item Code	Full Course Title (Includes Textbook)	Price
HD1AFC	Basic Hydraulic Technology	\$ 199.40

Or Choose the Lessons You Want

Textbook Fee	\$ 45.40
Number of Lessons _____ x \$22.00 =	\$ _____
Your Total Cost = (Remember to include textbook fee)	\$ _____

Hand Tools

Objective: Study the correct way to use and care of hand tools while emphasizing safety.

Audience: (All personnel) Anyone using hand tools wanting to know the correct way to use hand tools, take care of them and use them *safely*.

Item Code	Lesson Title
HT.1	Hand Tools – Screwdrivers, Machinist Hammers, Pliers, and Wrenches
HT.2	Hand Tools – Wrenches, Chisels, Punches, Files, Hacksaws, Feeler Gages, Steel Rules, Micrometers, Screw Extractors and Carpenter's Tools

Item Code	Required Textbook
BKHT BK	<i>ABC's of Hand Tools</i>

Easy Enroll Guide

Item Code	Full Course Title (Includes Textbook)	Price
HT1FC	Hand Tools	\$ 49.25

Or Choose the Lessons You Want

Textbook Fee	\$ 5.25
Number of Lessons _____ x \$22.00 =	\$ _____
Your Total Cost = (Remember to include textbook fee)	\$ _____

Mechanical Refrigeration

Objective: Develop a basic understanding of mechanical refrigeration, various refrigeration cars, types of refrigeration equipment, effects of heat on refrigeration, the relation of pressure and temperature measurements of refrigeration.

Audience: Mechanics, carmen, apprentices, maintenance personnel responsible for the care and maintenance of refrigeration cars.

Item Code	Lesson Title
MR.1	Basic Principles-Refrigeration Cars, Refrigeration Equipment
MR.2	Heat Effects-Pressure and Temperature, Measurements
	*A separate booklet is required for each lesson.

Easy Enroll Guide

Item Code	Full Course Title (Includes All Booklets)	Price
MR1FC	Mechanical Refrigeration	\$ 58.00

Or Choose the Lessons You Want

Number of Lessons _____ x \$9.00 per booklet	\$ _____
Number of Lessons _____ x \$22.00 =	\$ _____
Your Total Cost = (Remember to include booklet fee)	\$ _____

How to Run a Lathe

Objective: To aid the beginner or apprentice in the machine shop and the student in the school shop to secure a better understanding of the fundamentals and the operation of a Screw Cutting Engine Lathe. Also learn the best and most practical methods of machine shop practice in use.

Audience: Beginners or apprentices wanting to learn about the fundamentals of Screw Cutting Engine Lathes.

Item Code	Lesson Title
LA.1	Lathe Work-Parts-Care-Operation
LA.2	Grinding Tools-Lathe Measurements
LA.3	Plain Turning-Chuck Work
LA.4	Taper Turning and Boring
LA.5	Cutting Screw Threads

Item Code	Required Textbook
BKLA BK	<i>How to Run a Lathe</i>

Easy Enroll Guide

Item Code	Full Course Title (Includes Textbook)	Price
BKLA1FC	How to Run a Lathe	\$ 143.00

Or Choose the Lessons You Want

Textbook Fee	\$ 33.00
Number of Lessons _____ x \$22.00 =	\$ _____
Your Total Cost = (Remember to include textbook fee)	\$ _____

Put yourself in the driver seat!

You *choose* the number of lessons that best fit your needs and REMEMBER you *do not* have to take the entire course.