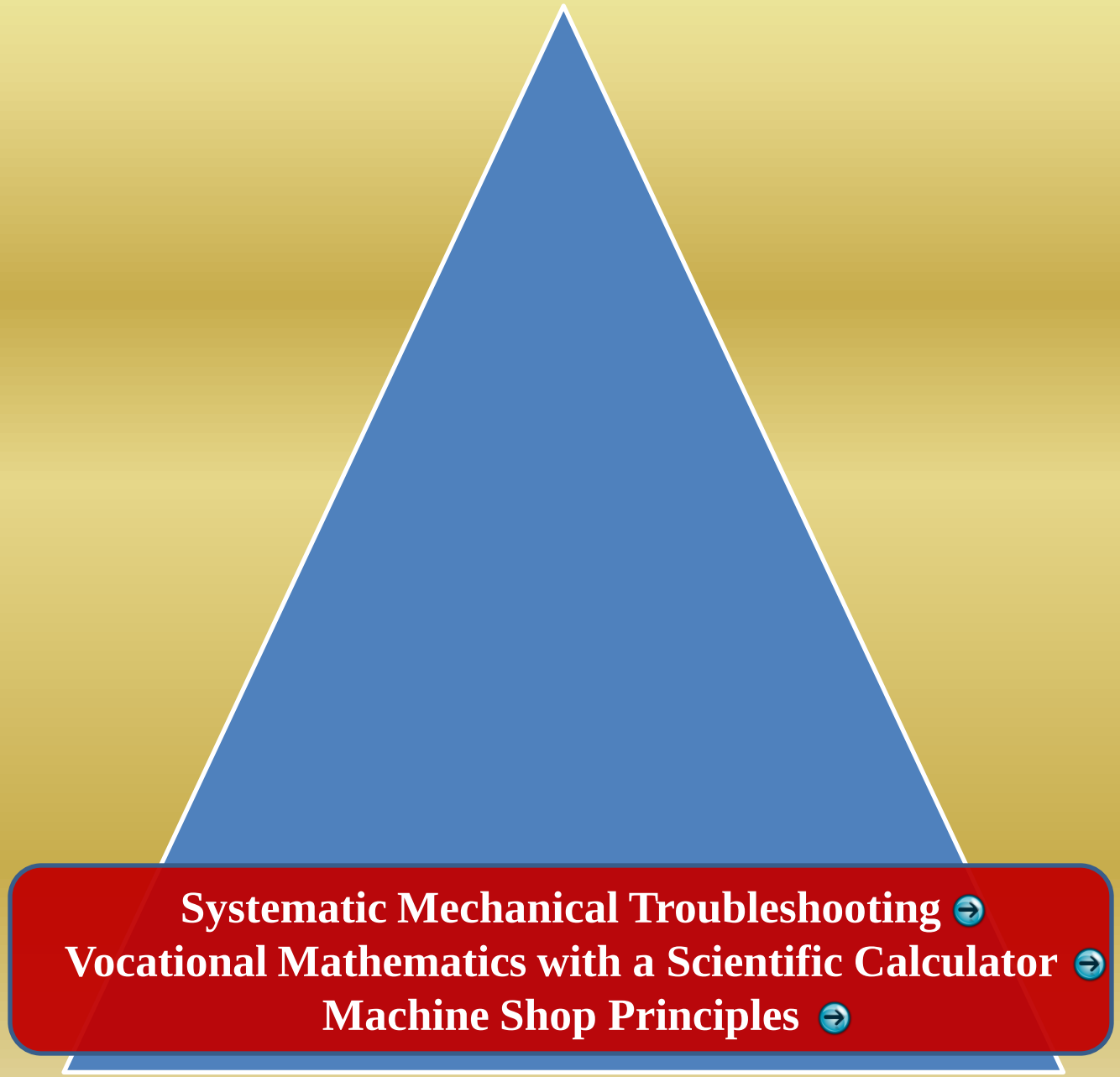
TECHNICAL TRAINING, LLC

Learning Pyramid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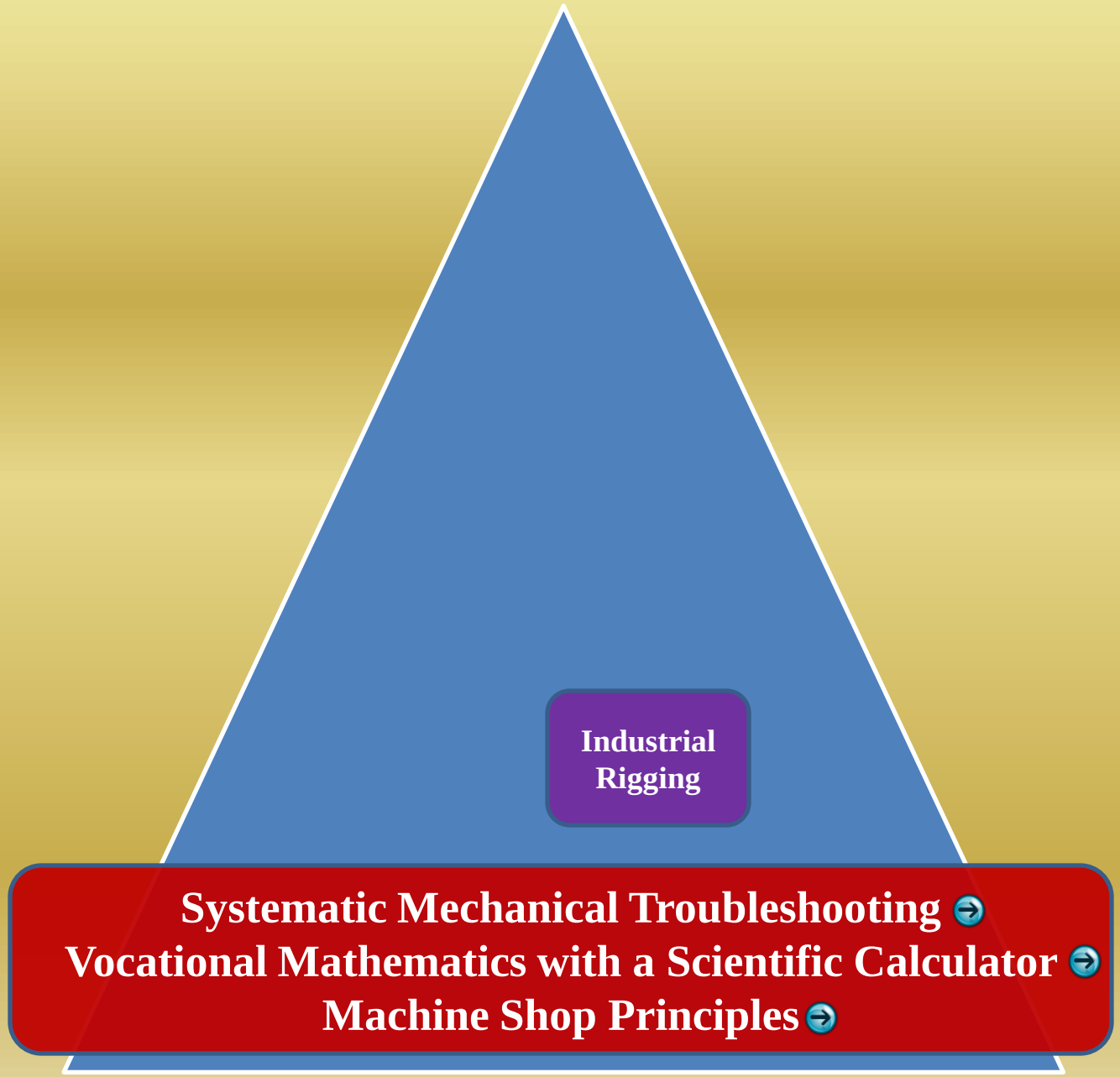
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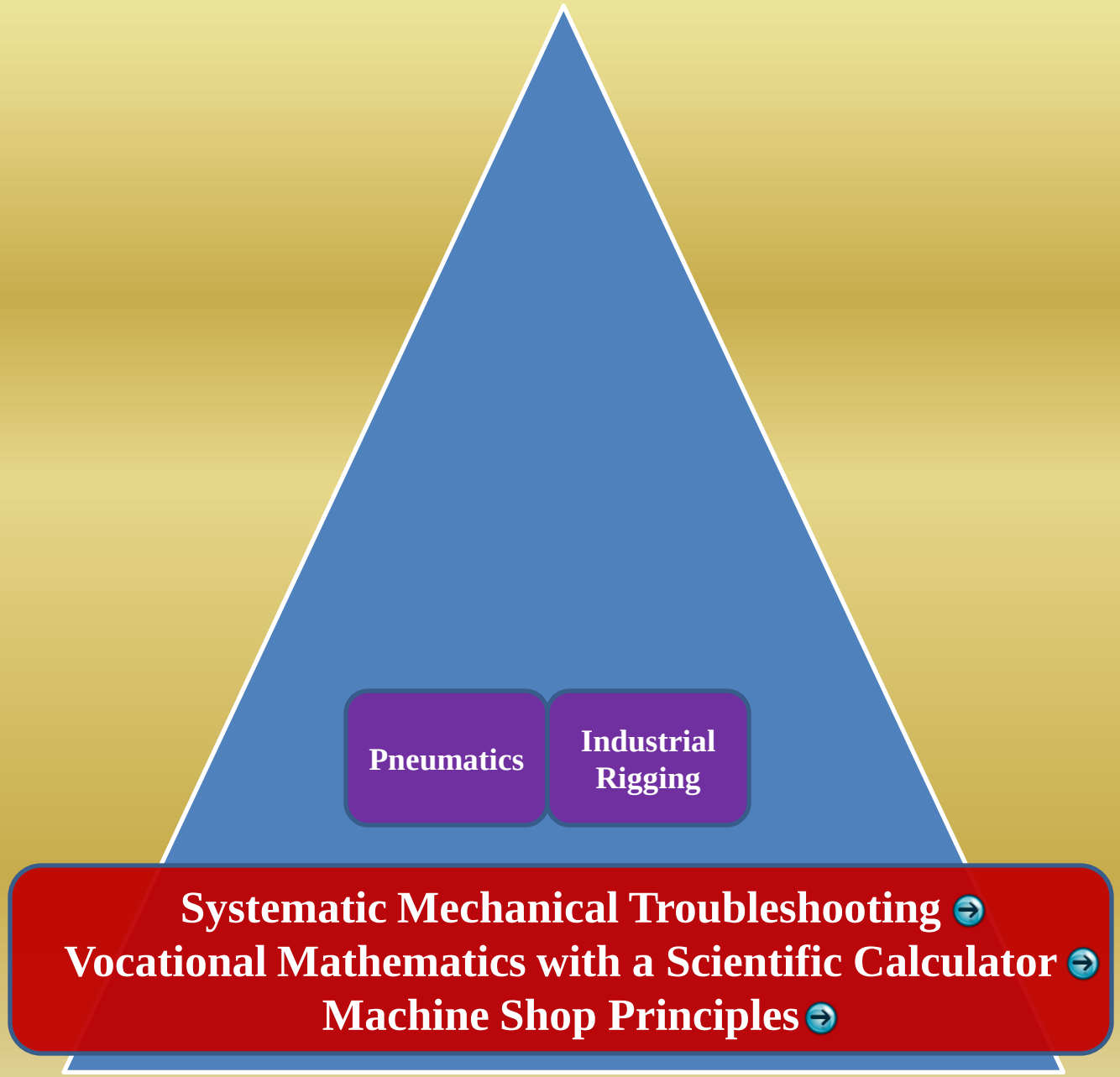
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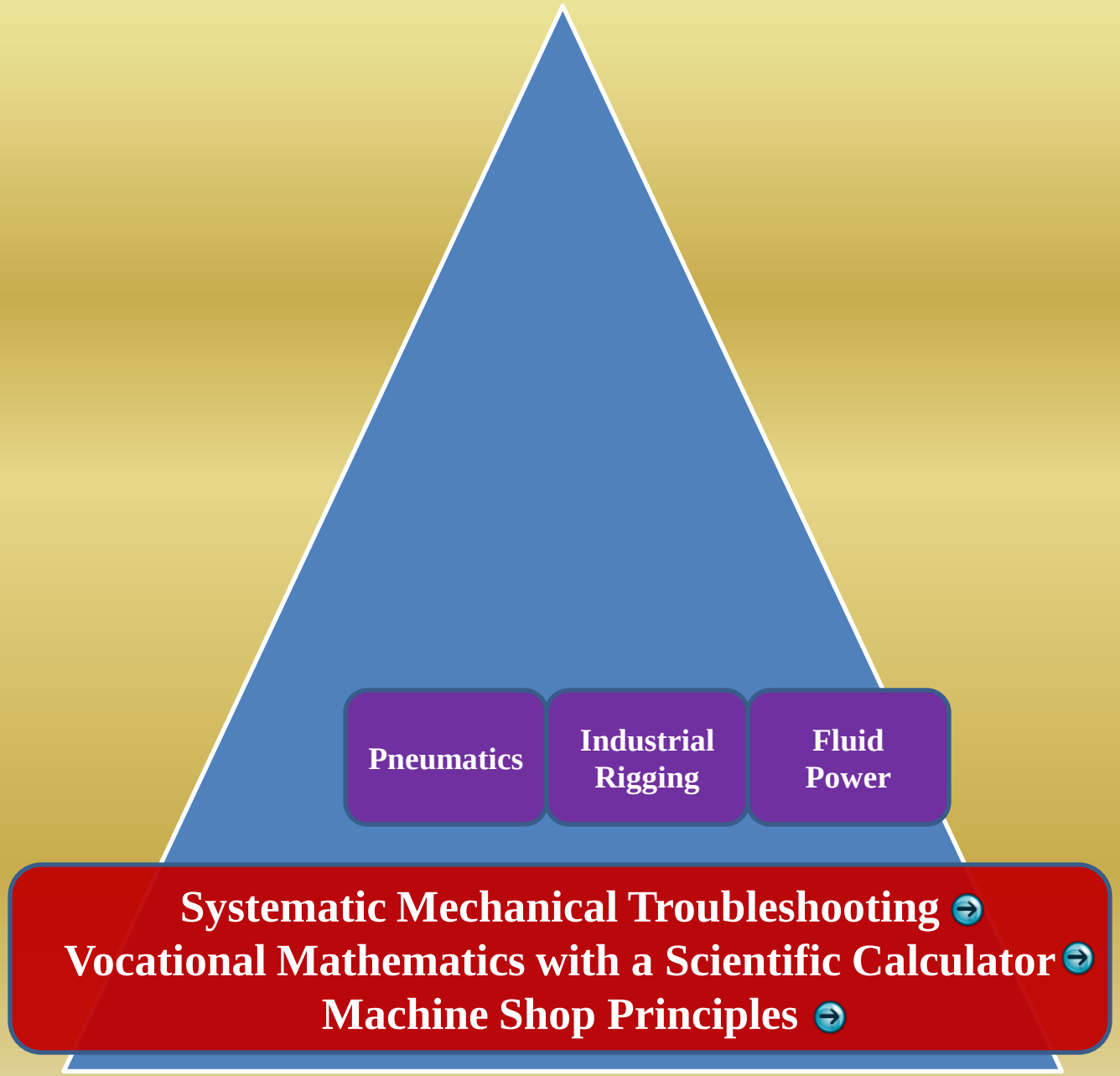
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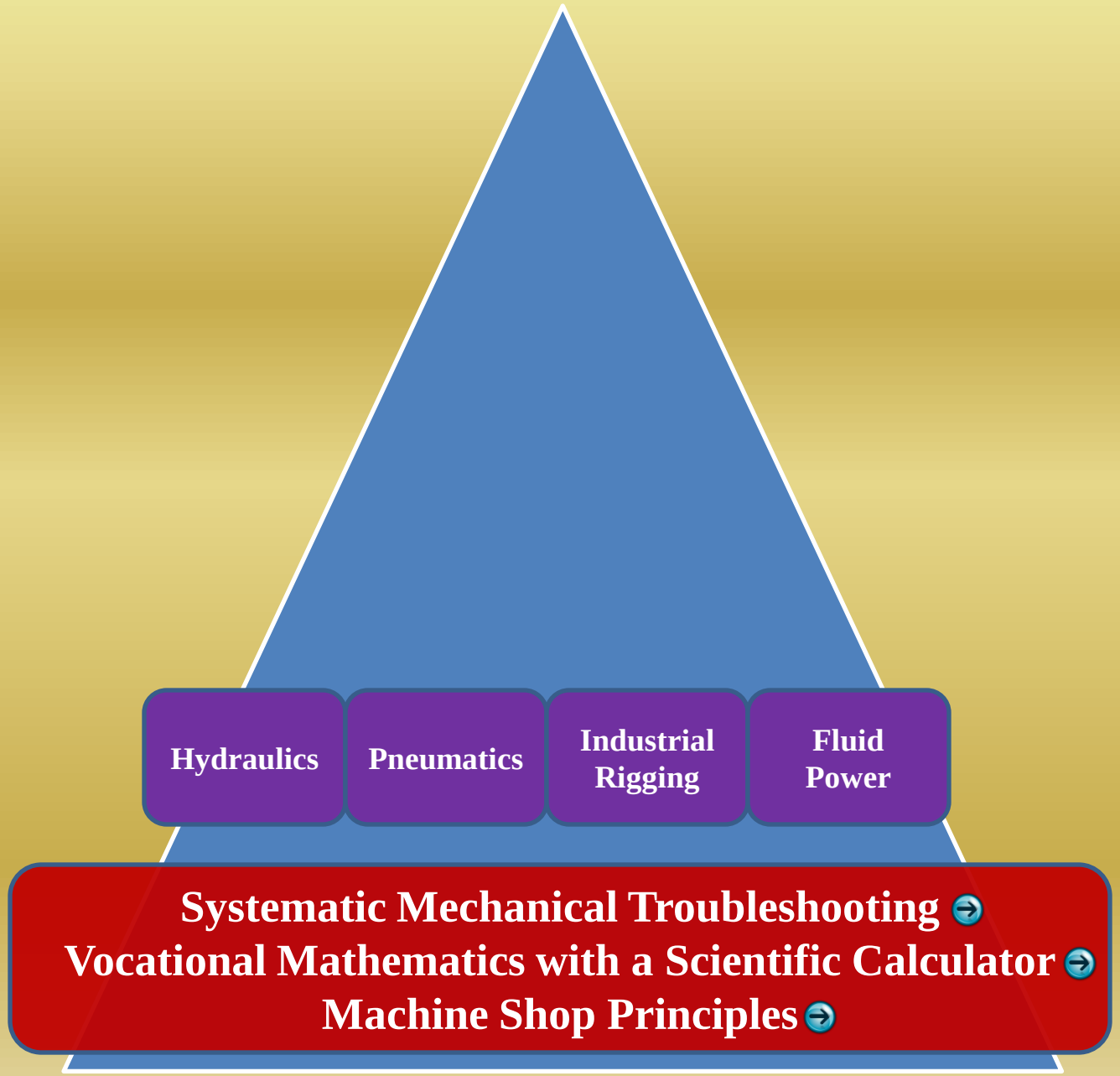
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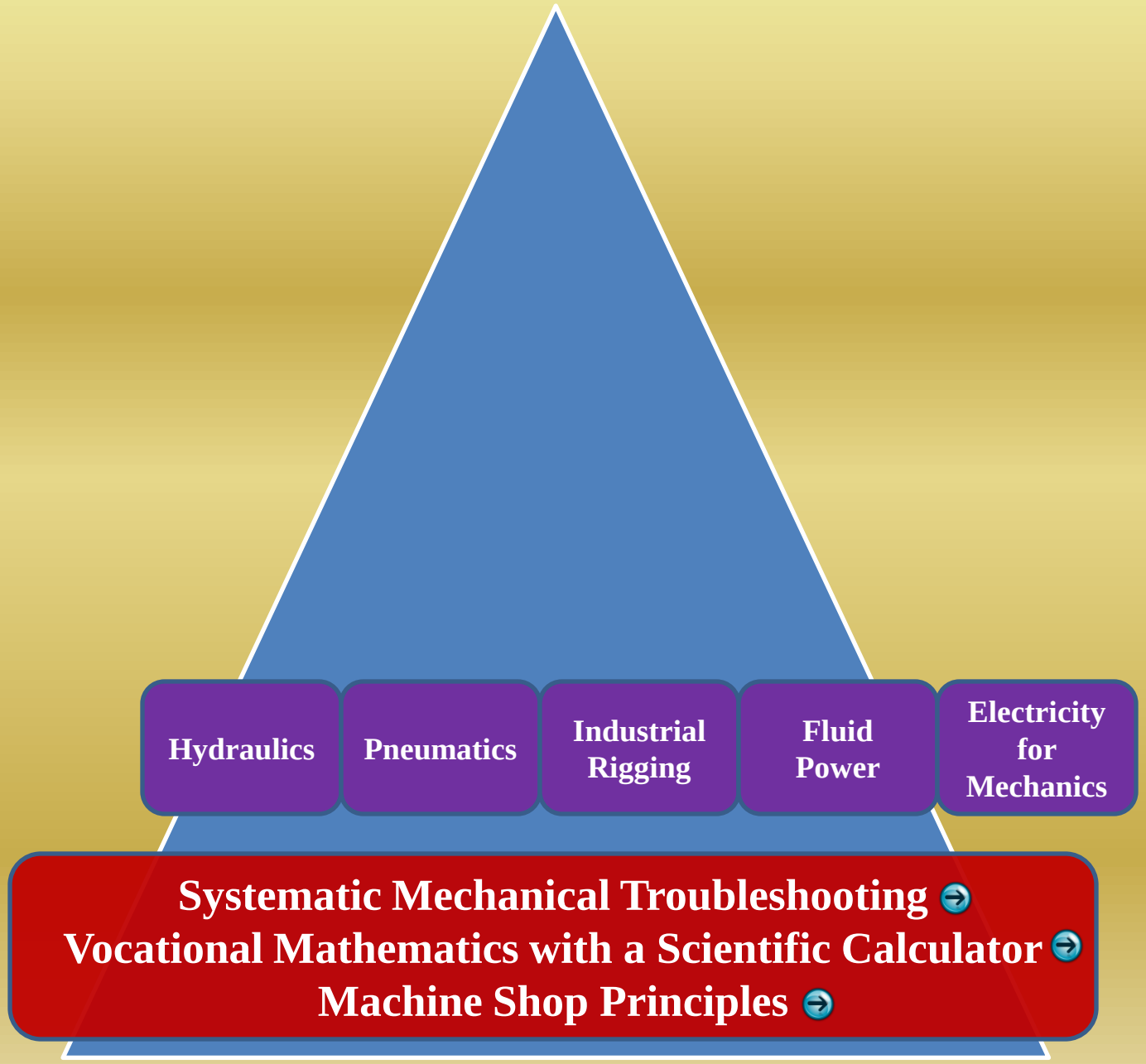
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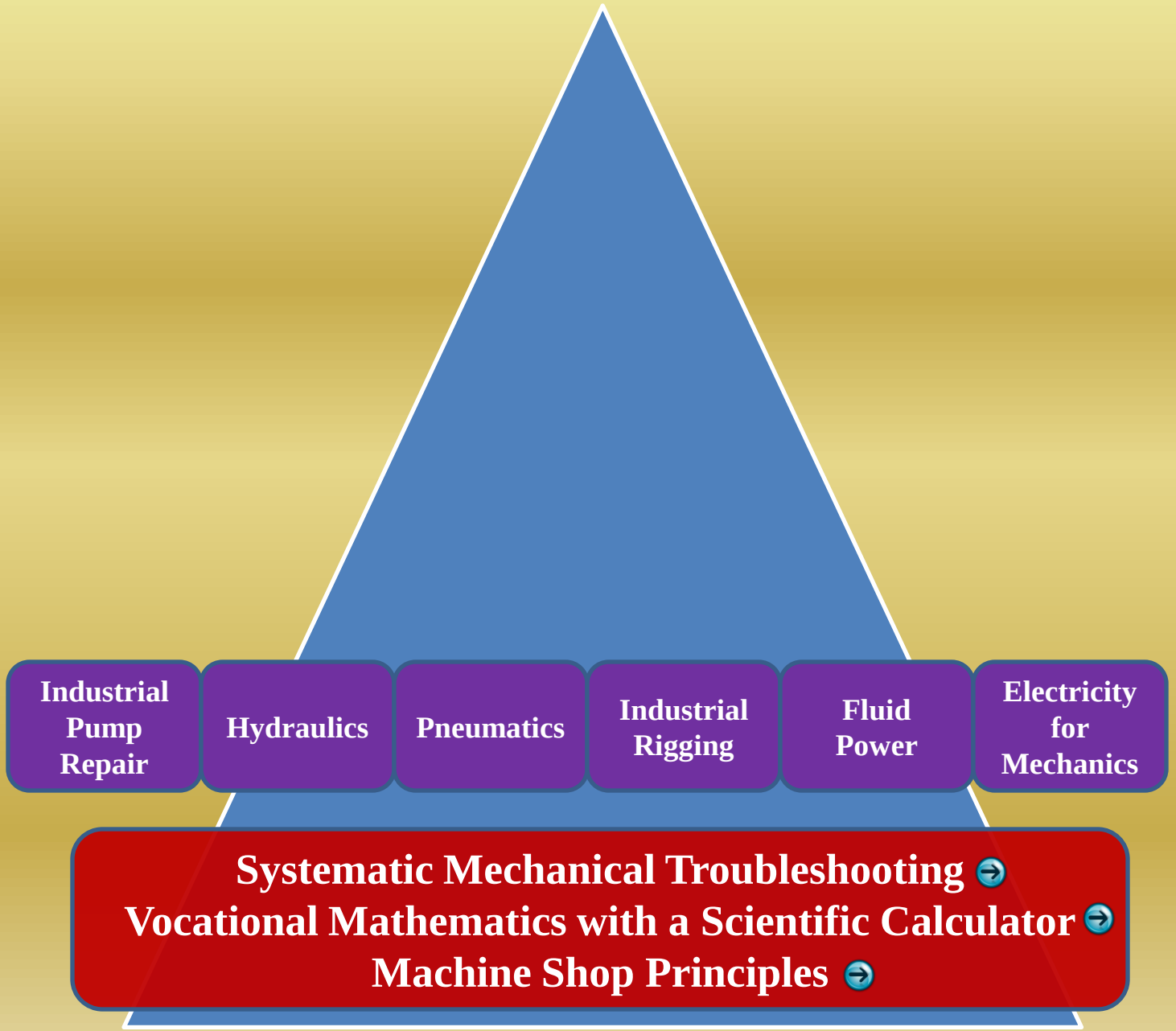
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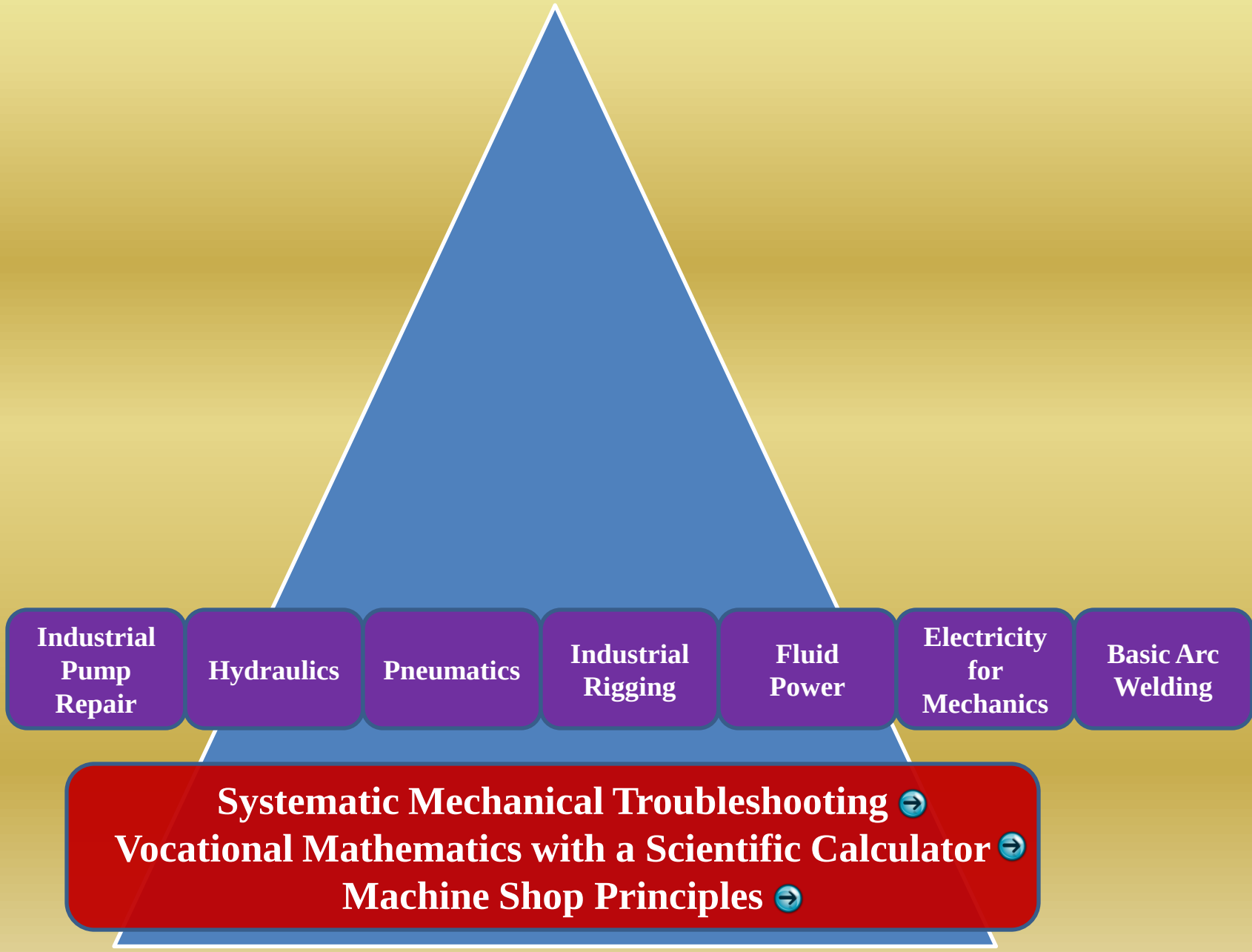
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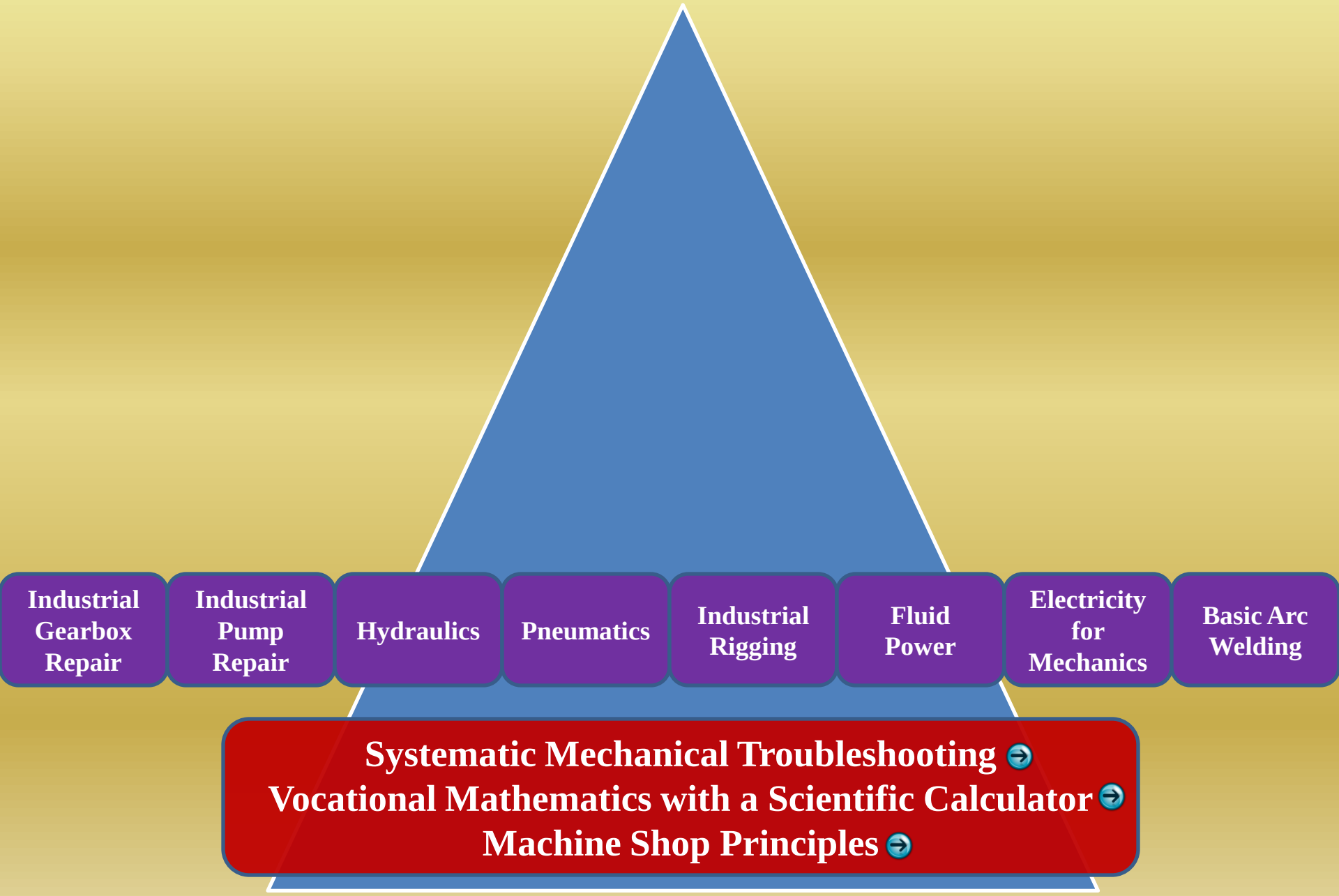
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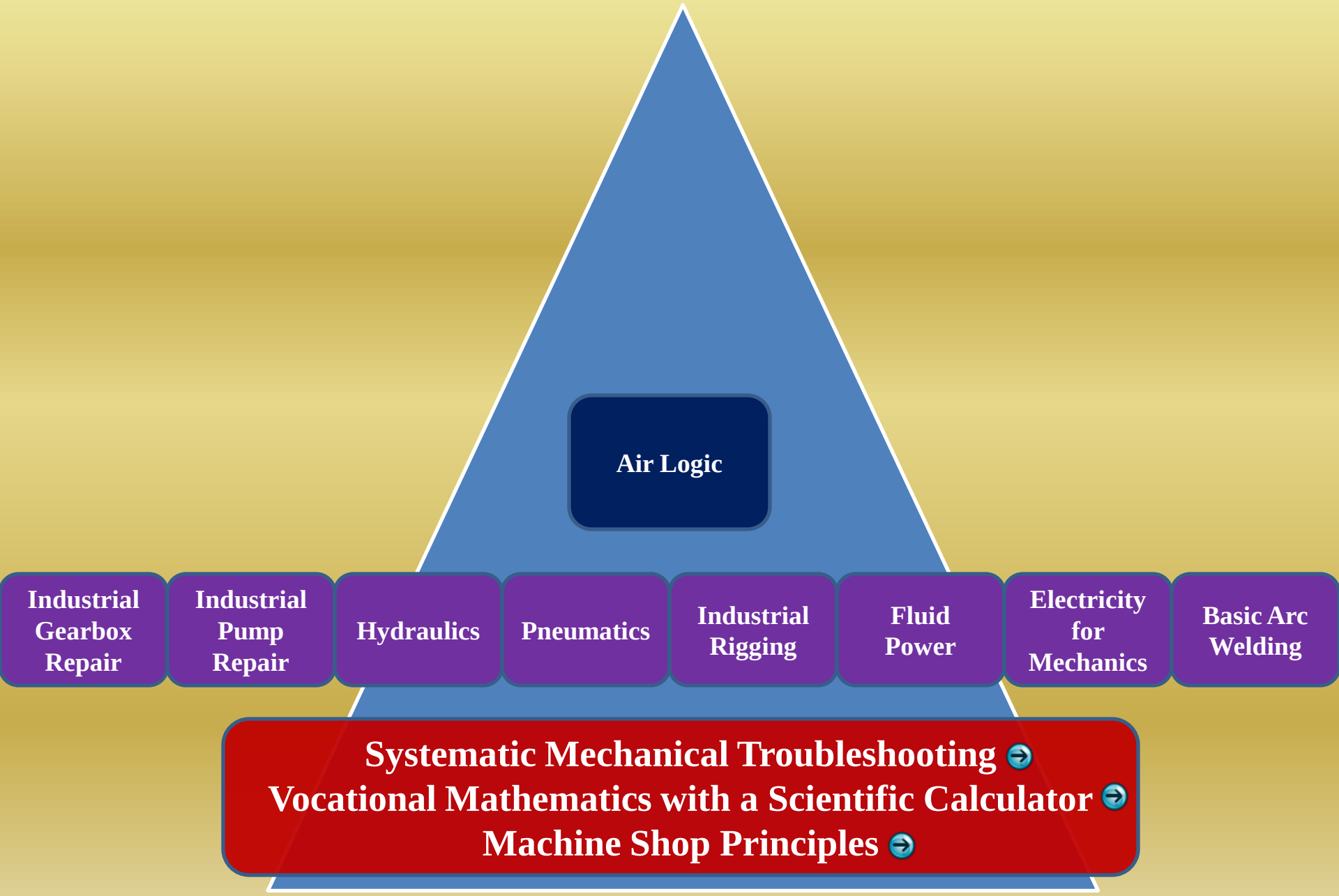
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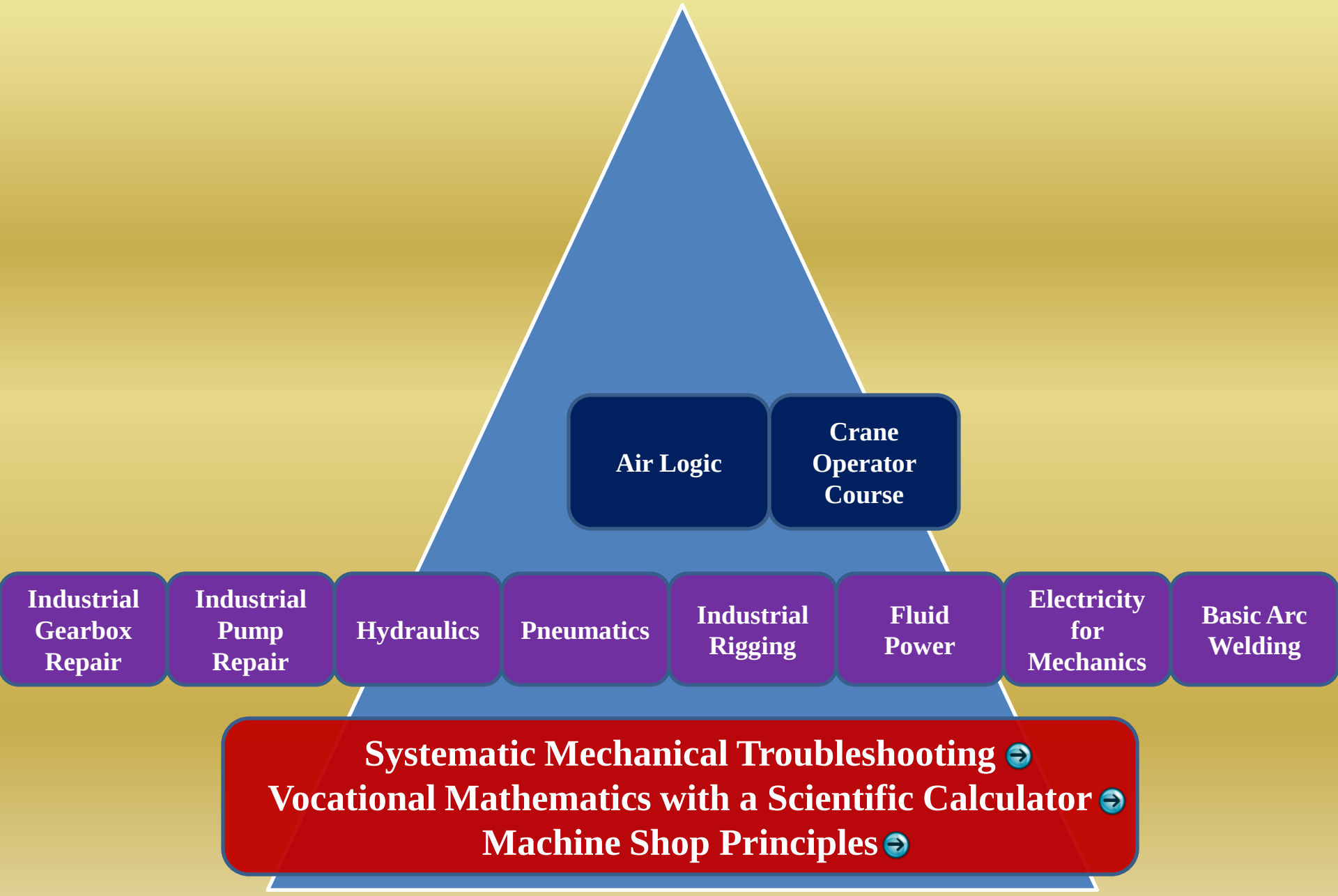
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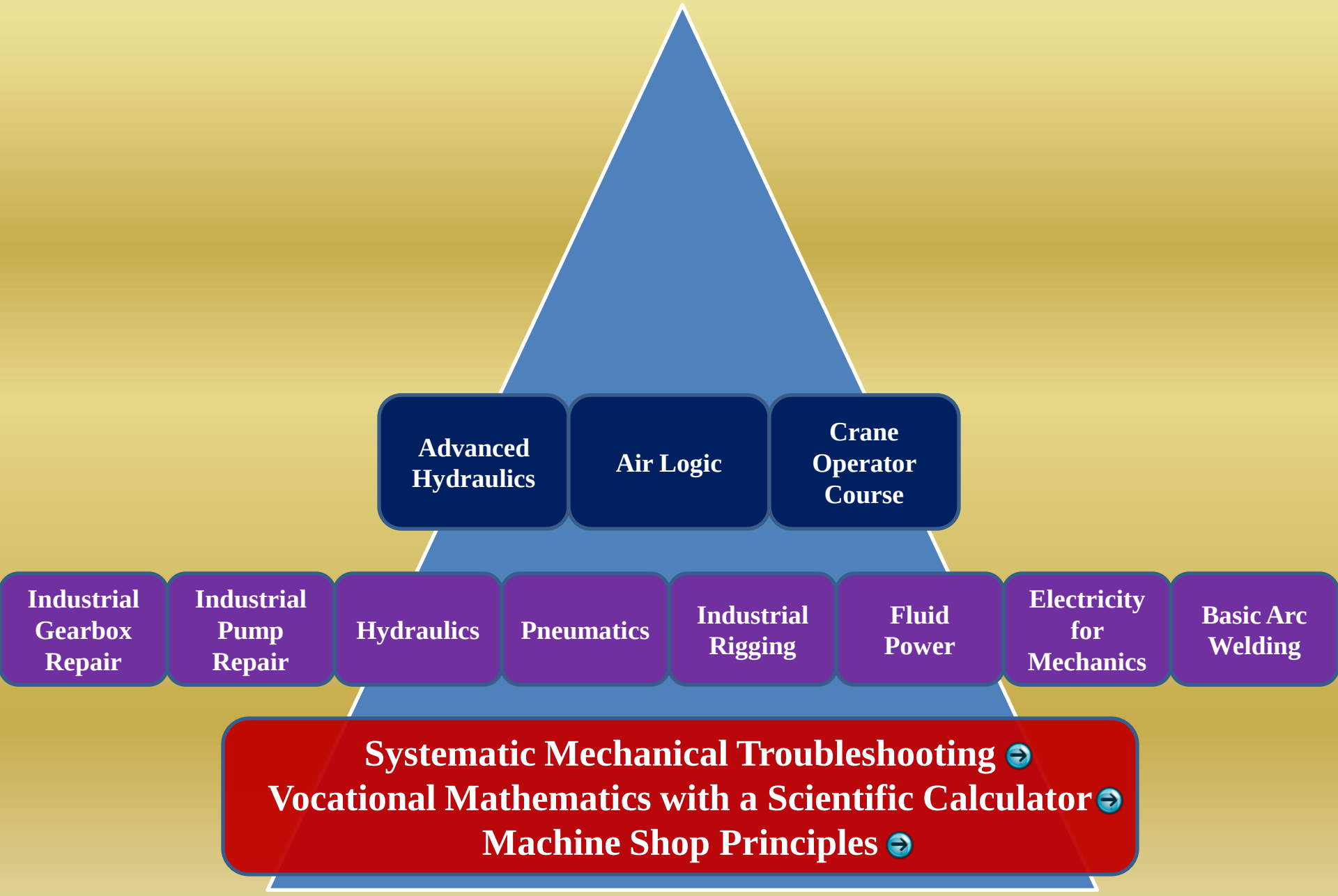
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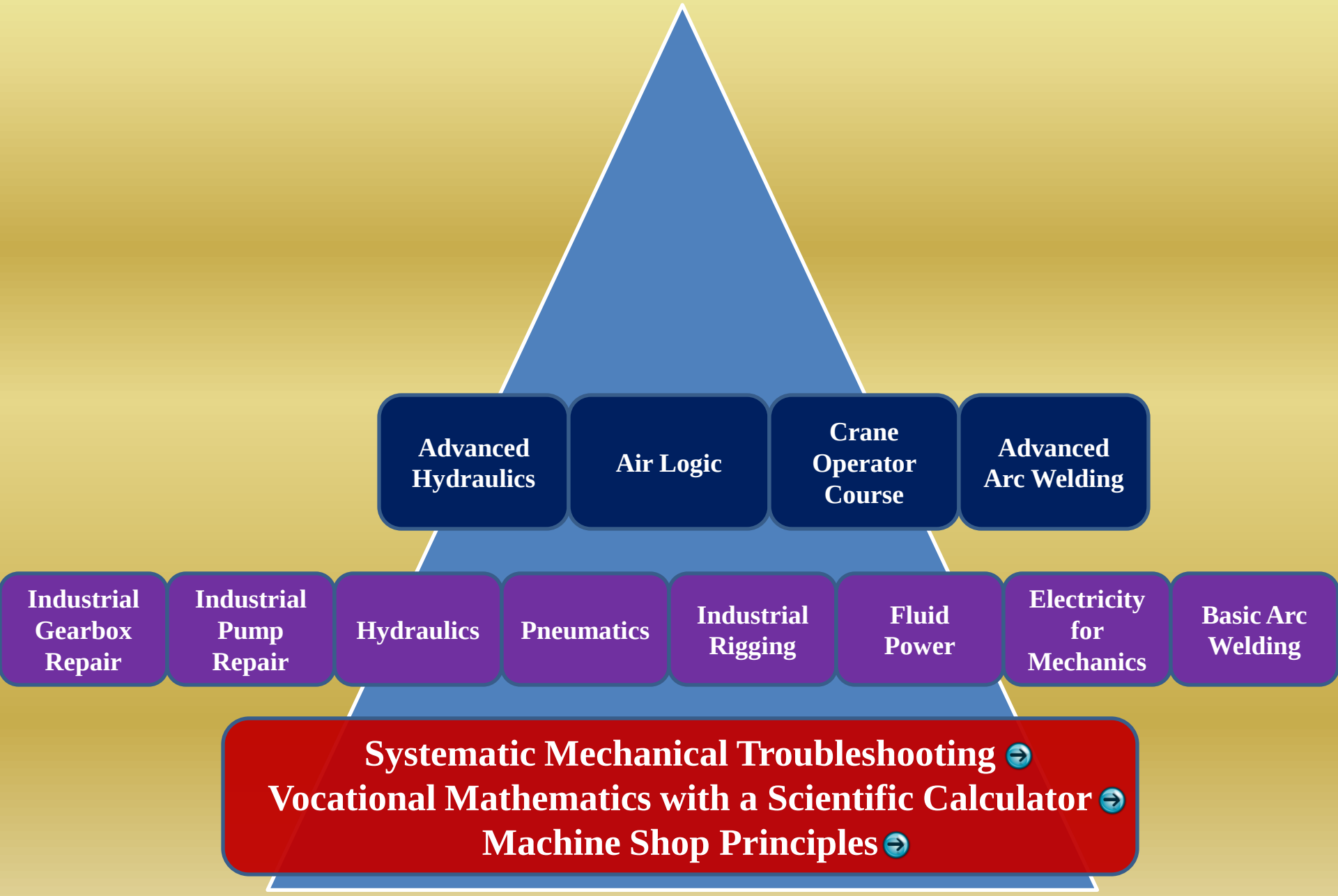
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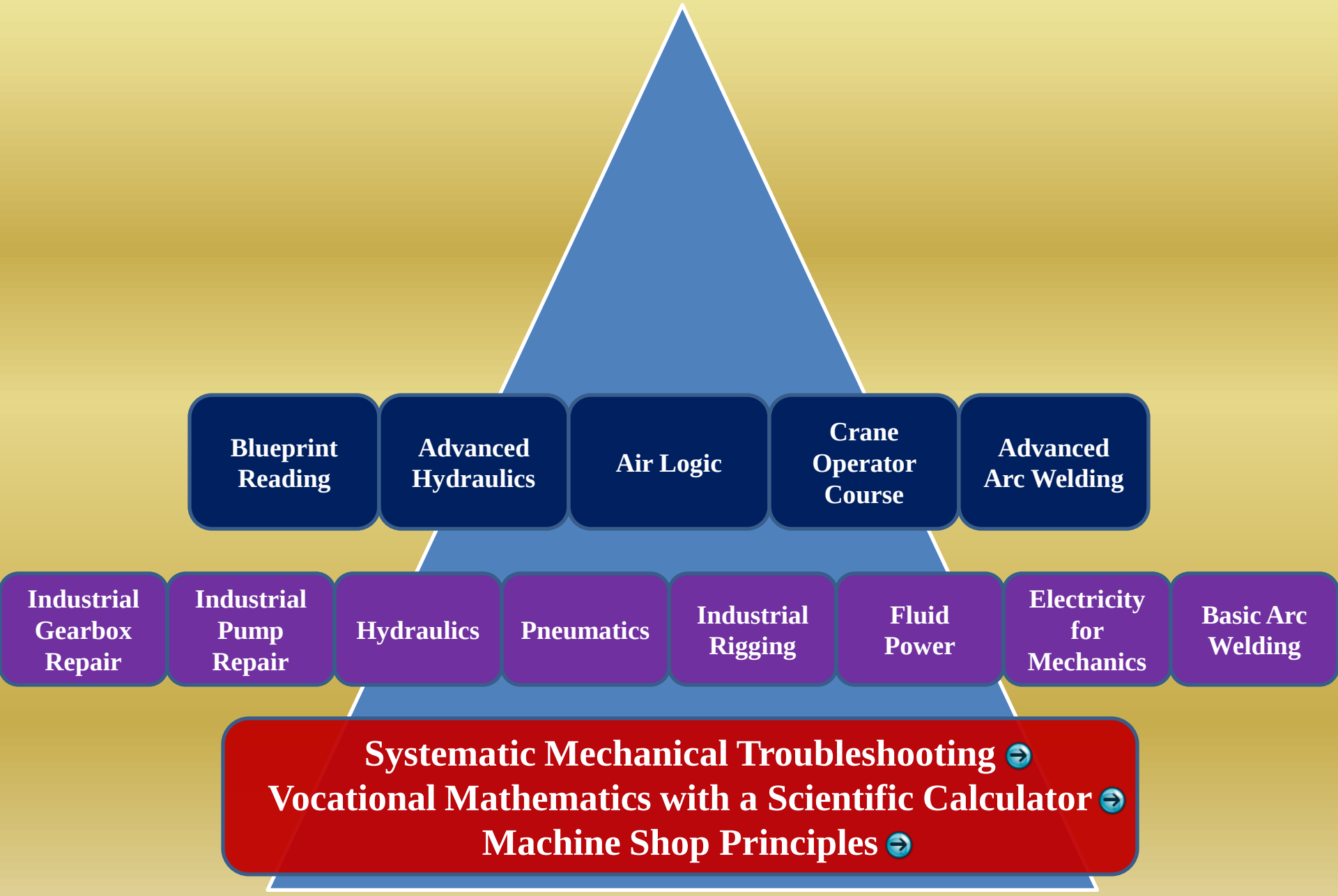
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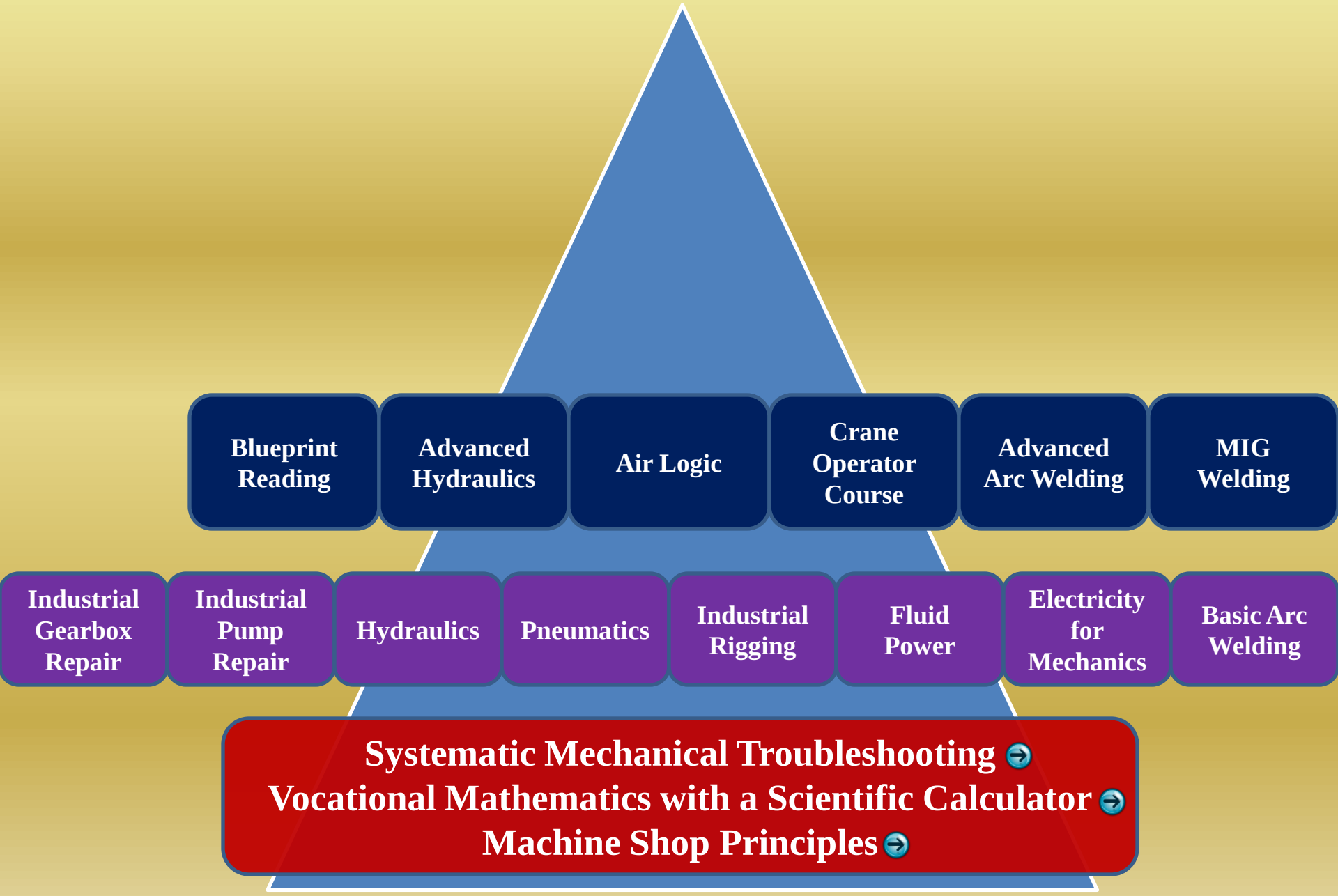
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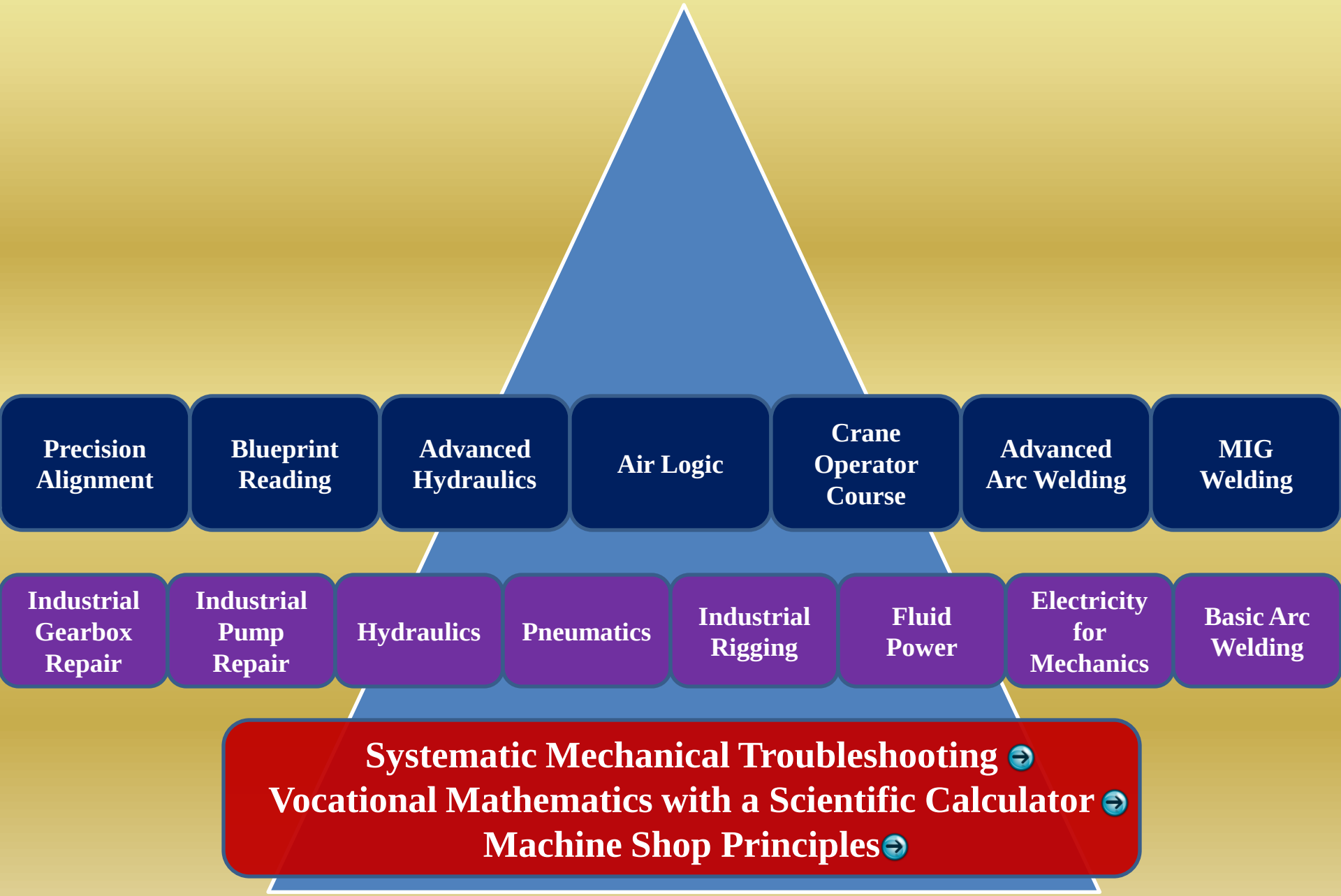
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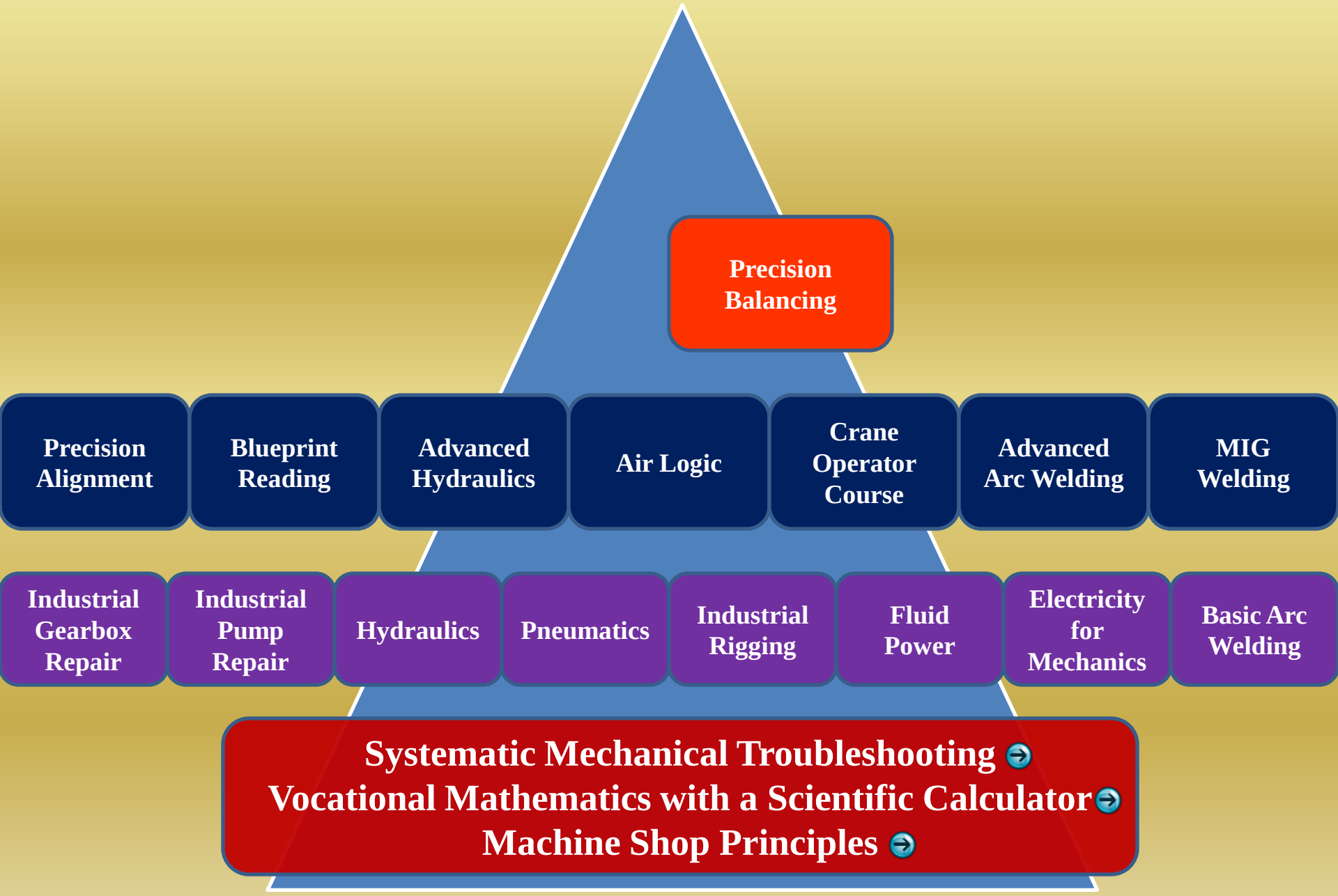
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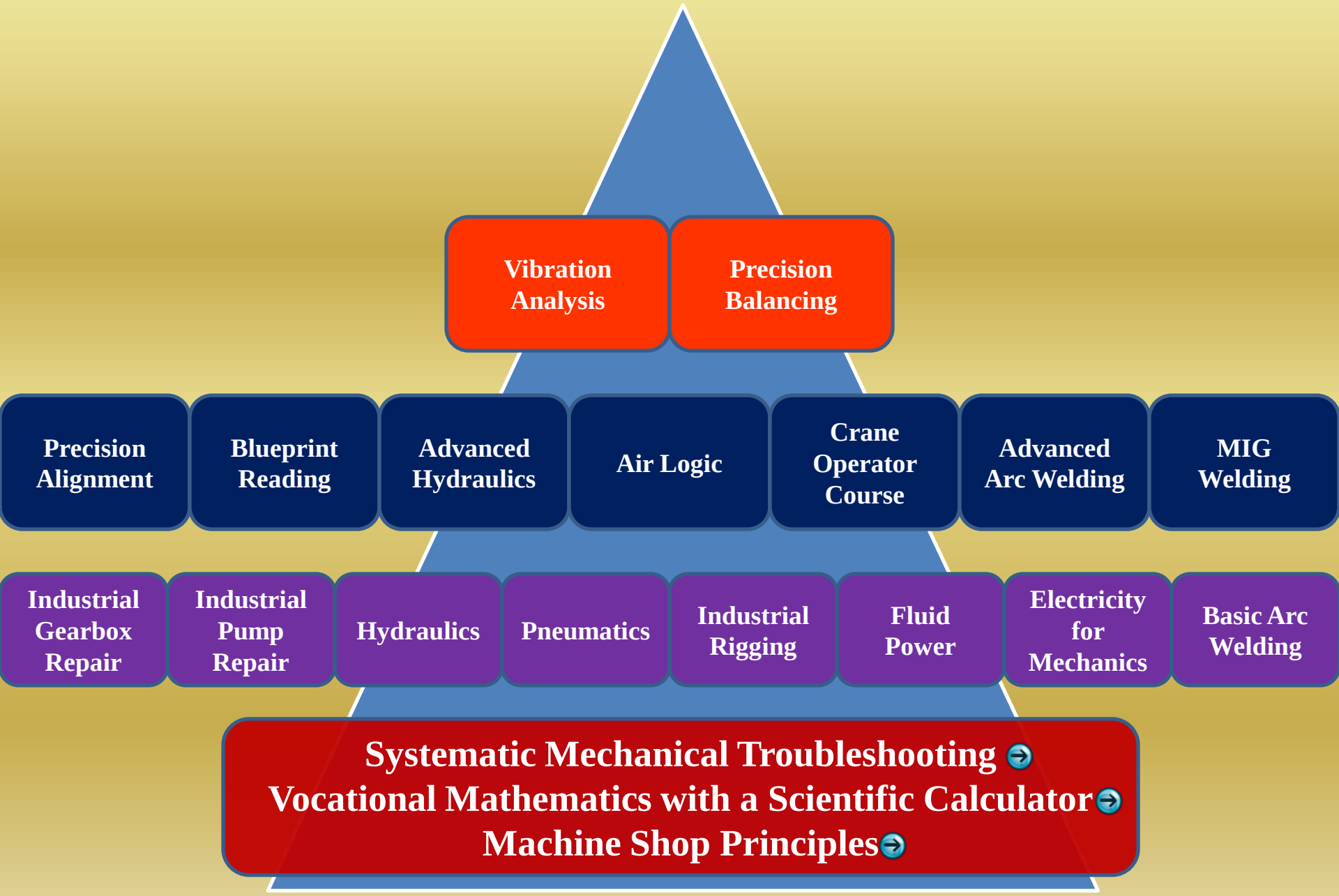
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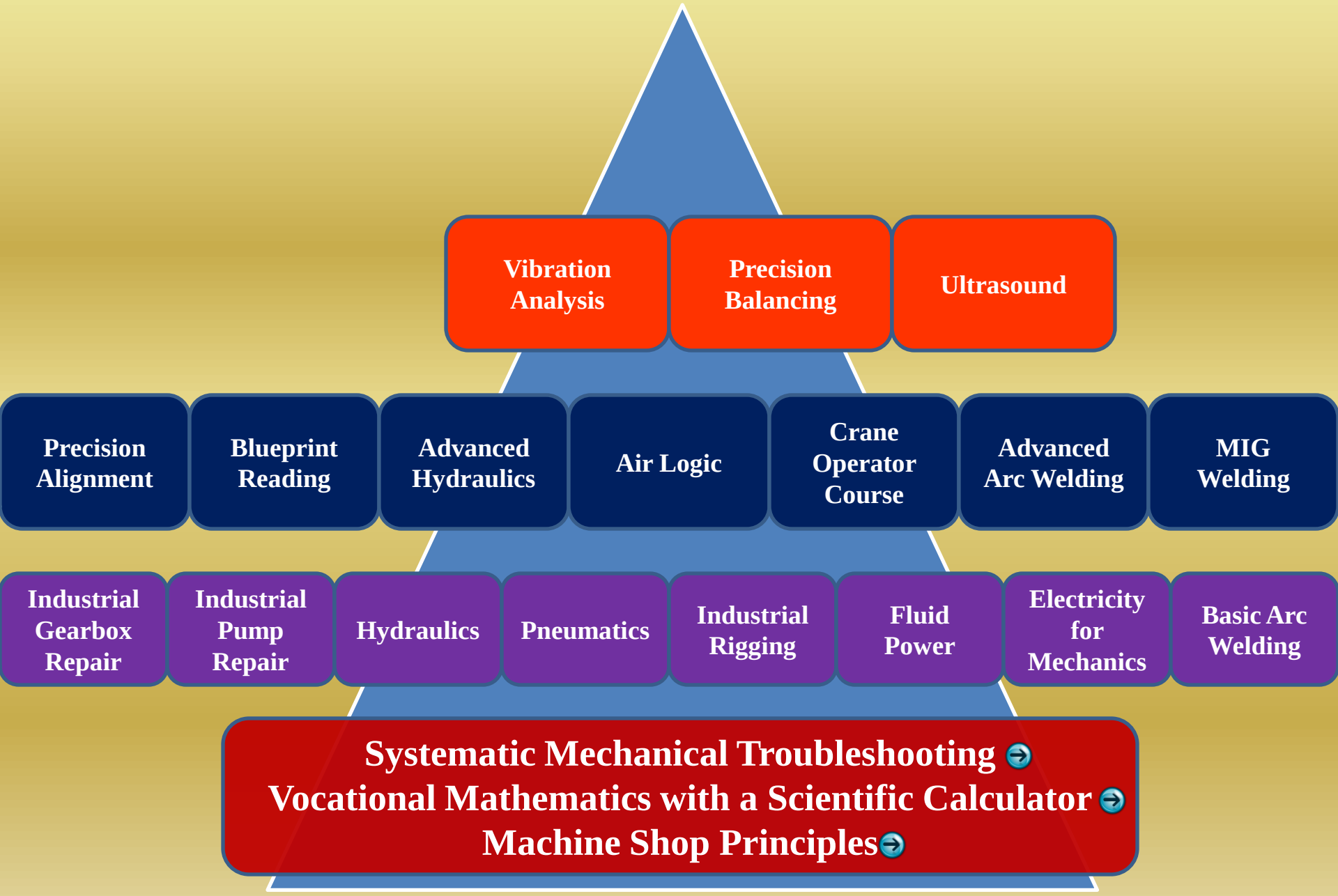
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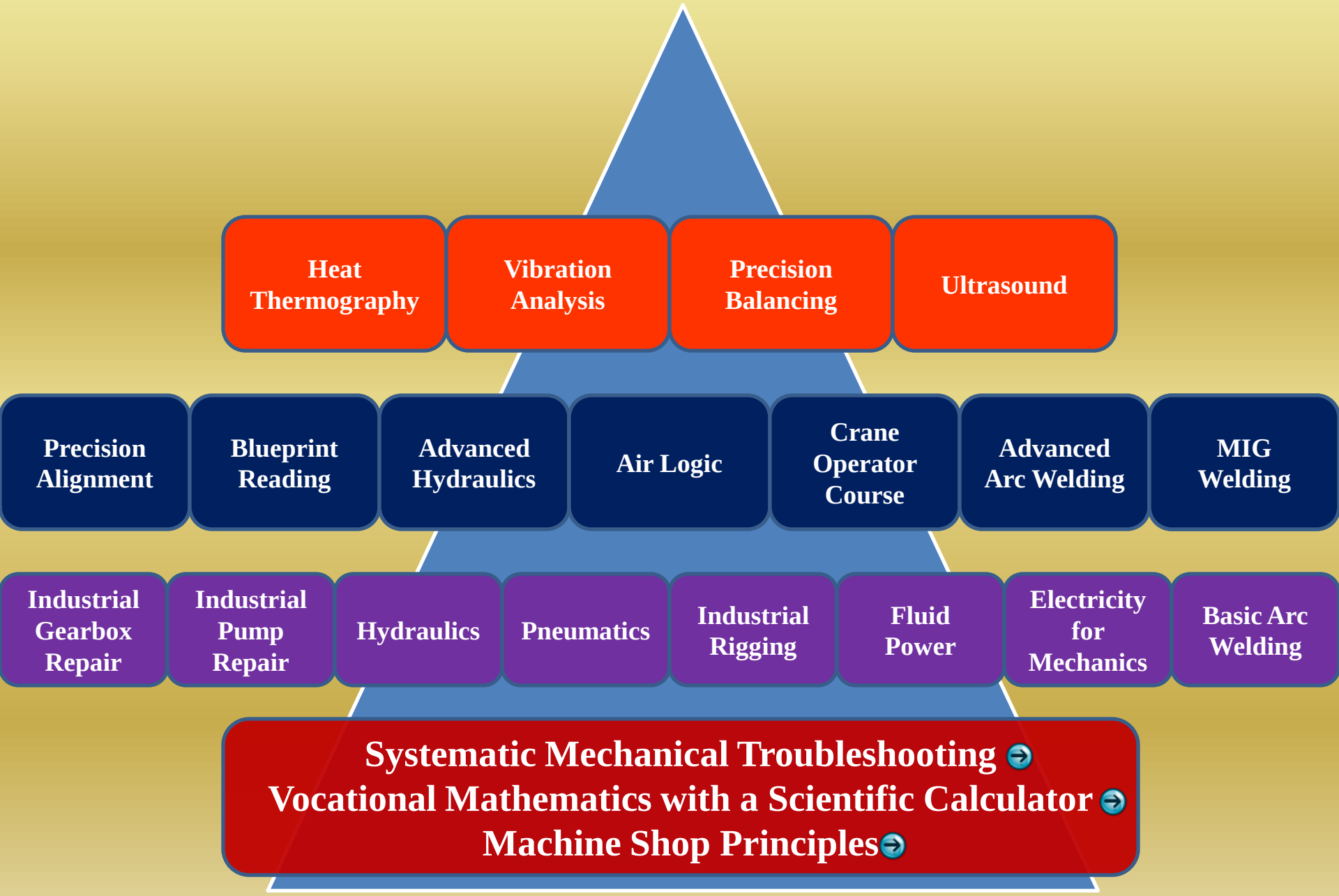
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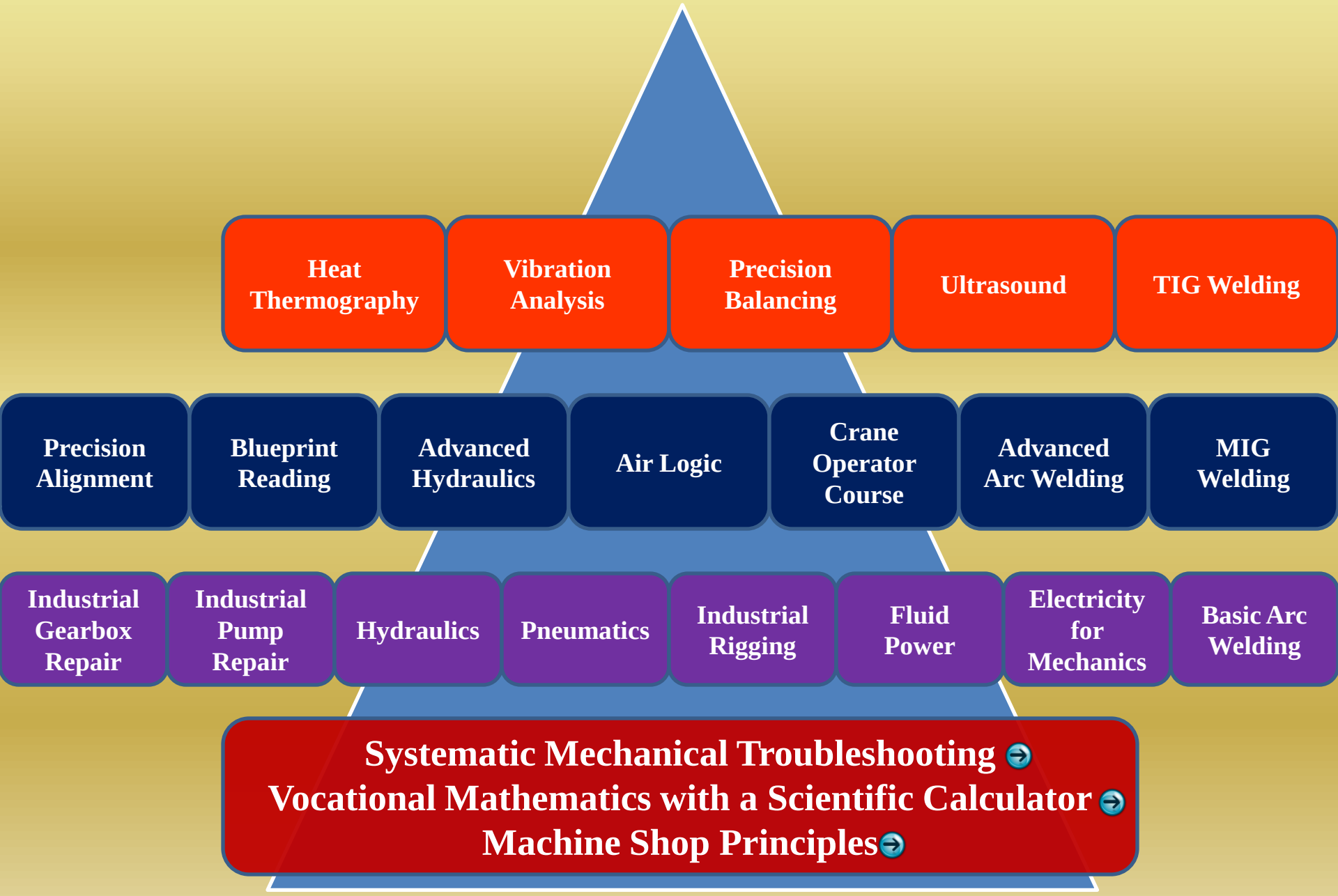
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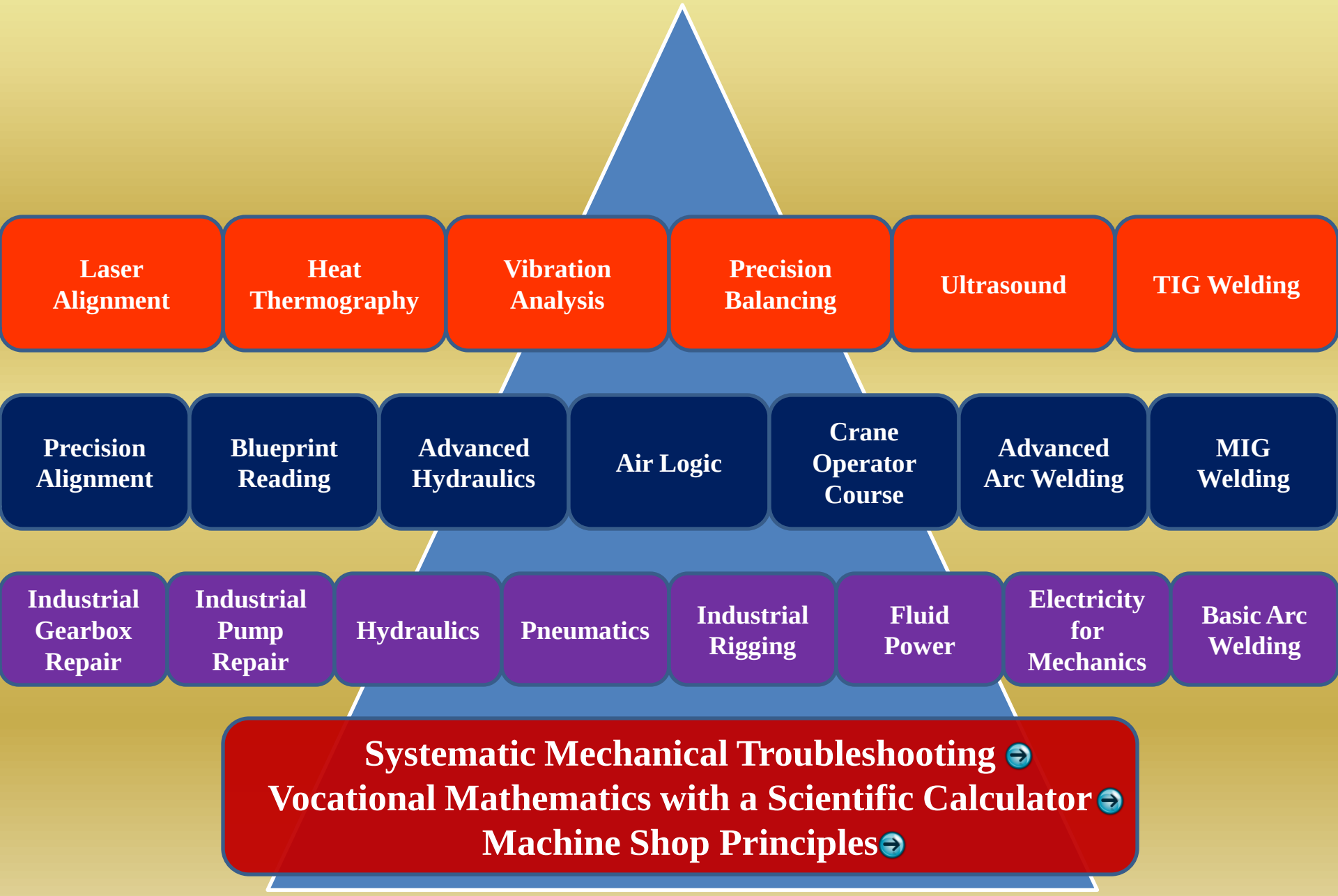
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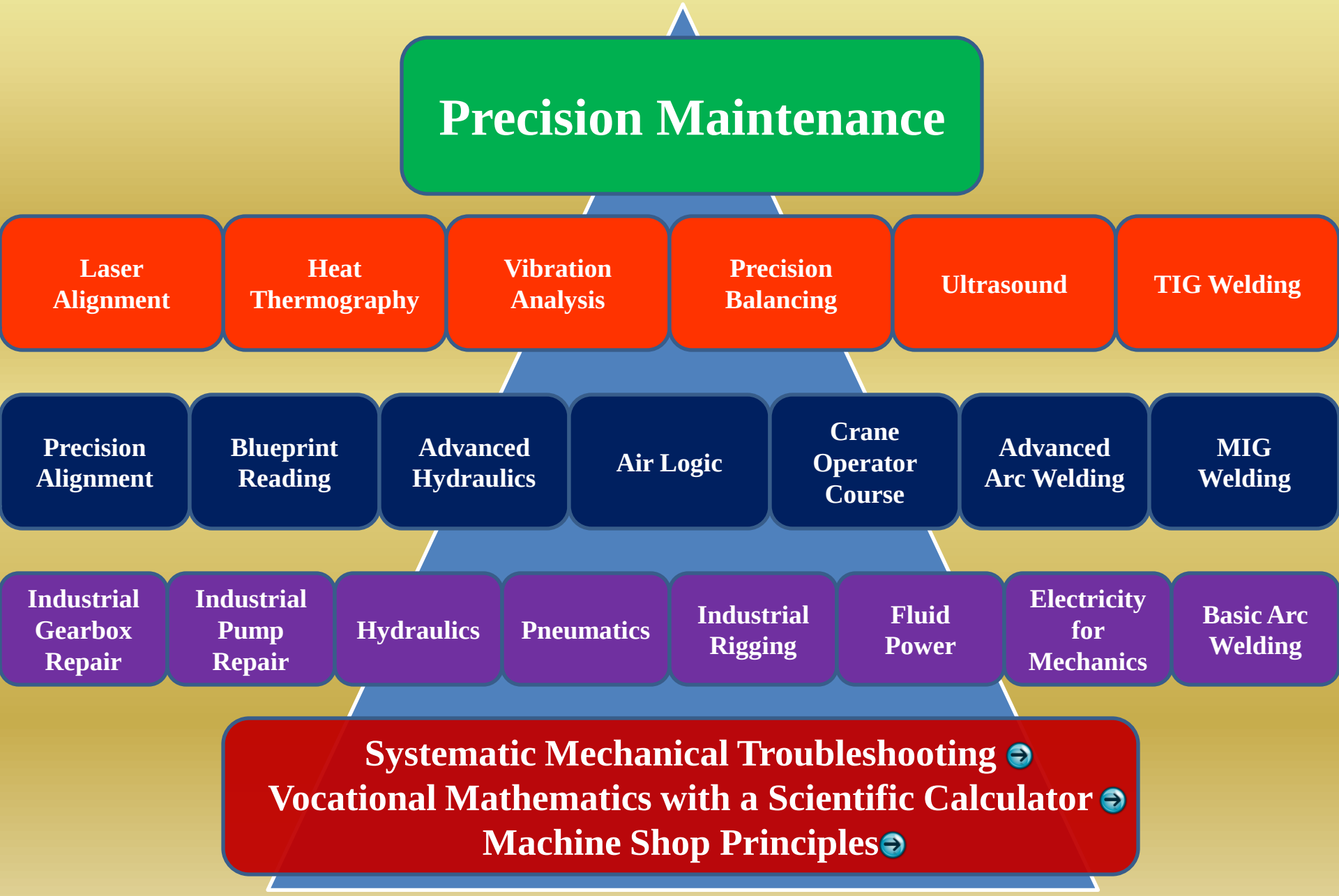
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Systematic Mechanical Troubleshooting

The focus of this course is systematic troubleshooting and getting to the source of the mechanical problem. Root cause analysis is taught so that the maintenance personnel can prevent reoccurring breakdowns that create excessive downtime. The participant will learn to focus energies on identifying the problem, the cause, and the best possible solution. An emphasis is placed on correcting mechanical problems to avoid excessive downtime. This course can be customized to focus on problem areas within your plant.

Vocational Mathematics

The participant will learn how to use a handheld, scientific calculator to perform vocational mathematics as it relates to skilled trades maintenance.

Topics will include: whole numbers, fractions, decimals, percentages, metric math, basic algebra, geometry, trigonometry, and sine/cosine/tangents.

Machine Shop Principles

This course is designed to teach the non-machinist requisite skills for performing routine machinery maintenance. The participants will learn basic skills allowing them to operate cut-off tools, milling machines, drills, taps, dies, surface grinders, rotating lathes, and precision measuring equipment.

Industrial Rigging

This class will teach participants to safely perform day to day rigging lifts as well as the more difficult rigging lifts. Students will learn the proper usage of all rigging mediums and the effects of sling angles on the tensions exerted on the slings. Participants will be exposed to the many different types of lifting equipment. Students will also gain insight into the uses of wire rope, lifting chains, nylon slings, poly slings, Kevlar slings, metal mesh slings, hooks, eye bolts, shackles, lifting rings, cable clips, and the proper ways of rigging a load.

Pneumatics

This course will provide the participant with an in-depth understanding of the pneumatics that they will encounter in plant maintenance. The course will take the participant from the beginning level to a very in-depth knowledge of pneumatic systems. The “hands-on" learning environment that is supported with workbooks, handouts, visual aids and live pneumatic circuits makes this an ideal learning environment. This course is excellent for general maintenance and production maintenance to skilled trades.

Fluid Power

This course will begin at an entry level and end at an advanced level in the study of fluid power systems. The comparison and study of air and oil as a working medium will be the focus. Participants will enjoy this hands-on class that will provide them with workbooks, handouts, visual aids and working systems to learn with.

Hydraulics

This class will start out with an introduction to hydraulics and teach the participant how to successfully maintain and troubleshoot industrial hydraulics. The course will be a hands-on instructor-led class that will teach theory and principles up to advanced troubleshooting skills. An in-depth study of pressure control, flow control, directional control, cylinders, motors, pumps and more.

Electricity for Mechanics

This course is designed to train new hires, update skilled craftsmen and cross-train personnel for servicing industrial, electrical and electronic equipment. This course provides training in electrical safety and safe work methods, National Electrical Code, basic electrical calculations, and electrical/electronic test equipment. The course may also be used for personnel who need a basic understanding of electronic and electrical fundamentals, as well as for non-Industrial electricians (e.g. A building and construction Trades background).

****This course may be customized.**

Industrial Pump Repair

This 32 hour course offers intensive insight into industrial pump troubleshooting and repair. The participant will gain knowledge in pump maintenance, alignment and disassembly as well as predictive and preventative maintenance of industrial pumps. Class includes instructor-led student labs on instructor's trainers as well as customer's own pumps. This course will be customized to suit customers‘ specific needs.

Basic Arc Welding

This course is designed to teach the basics to persons having little or no knowledge of welding. It is designed to teach the basics of arc welding commonly referred to as SMAW.

Industrial Gearbox Repair

This class will provide the participant with the knowledge needed to properly maintain, service, inspect, select and repair a variety of Industrial gearboxes. The course will be and instructor-led, hands-on class that will allow the participant to physically take apart various industrial gearboxes and learn to properly "set" the gears and how to properly "preload“ the bearings for maximum life expectancy. There will be a workbook, handouts and various visual aids used in the classroom to facilitate learning.

Air Logic

This course will give the student a thorough understanding of industrial air logic principles through the use of symbology, piloting and control circuits. Students will receive both classroom instruction and hands-on practice on our custom lab equipment.

Crane Operator Course

This course meets the ASME Crane Standards and OSHA Regulations required to safely operate the Mobile Cranes used in an Industrial environment.

Participants will be qualified as a signal person, industrial rigger, and crane operator upon completion of this course.

Advanced Hydraulics

This class is designed to focus on advanced troubleshooting skills to help the experienced technician better solve industrial hydraulic problems. Hydraulic servo and proportional valves will be covered in detail. Plant schematics or industrial hydraulic blueprints will be studied to help the troubleshooter solve hydraulic problems.

Advanced Arc Welding

This program is structured to teach skills that upgrade the competency and/or cross train individuals in welding techniques. The content of each segment can be customized According to the specific needs of each group. The length of each segment (shop practice time) will need to be extended in proportion to the proficiency desired of the individuals within each group. The length will also be affected by the type (sheet metals, plate, pipe) metals, the kind of metal (carbon steel, stainless steel, aluminum) and the welding positions to be learned.

Blueprint Reading

This course can be customized to meet your blueprint reading needs.

Types of blueprints include: building blueprints, hydraulic and pneumatic schematics, electrical prints, ladder logic, and mechanical blueprints.

MIG Welding

This program is structured to teach skills that upgrade the competency and/or cross train individuals in welding techniques. The content of each segment can be customized according to the specific needs of each group. The length of each segment (shop practice time) will need to be extended in proportion to the proficiency desired of the individuals within each group. The length will also be affected by the type (sheet metals, plate, pipe) metals, the kind of metal (carbon steel, stainless steel, aluminum) and the welding positions to be learned.

Precision Alignment

This hands-on one day course will introduce the students to various precision alignment techniques used to correctly align industrial rotating equipment. The students will learn to do precision alignment using three different methods:

Graphical alignment

Mathematical alignment

Use of an alignment computer

Precision Balancing

This course is designed to teach participants how to measure unbalance in rotating equipment. The participant will be able to calibrate the addition or removal of weights necessary to correctly balance the rotating machinery.

Vibration Analysis

This course is designed to introduce the skilled tradesmen to the field of vibration analysis, helping them to understand practical solutions to machinery and maintenance vibration problems. The course begins at an entry level and progresses through troubleshooting and understanding of the world of vibration. This class is an excellent entry level course for the skilled tradesmen and is recommended for all trades.

A must for apprentice-men and journeymen.

Ultrasound

This course is designed to teach the participant how to use ultrasound technology as a predictive and preventive maintenance tool.

The participant will be able to troubleshoot high-pressure leaks, bearing failures, lubrication failures, and impending mechanical or electrical failures.

Heat Thermography

This course has been designed to train maintenance personnel in the understanding, benefits and operation of thermographic analysis equipment. This program will enable the participants to use thermographic equipment to assess the life-span and thermal stature of critical production and operation systems. This course will be customized to suit customers' specific needs.

TIG Welding

This program is structured to teach skills that upgrade the competency and/or cross train individuals in welding techniques. The content of each segment can be customized according to the specific needs of each group. The length of each segment (shop practice time) will need to be extended in proportion to the proficiency desired of the individuals within each group. The length will also be affected by the type (sheet metals, plate, pipe) metals, the kind of metal (carbon steel, stainless steel, aluminum) and the welding positions to be learned.

Laser Alignment

This course is designed as a very thorough and complete alignment class for Industrial Equipment.

Several types and methods of alignment will be covered so that the participant will be able to go back to their plant and apply the method available to them. In this course basic machinery alignment will be taught and several methods of alignment conditions will be covered. Some of the methods taught in this class are as follows: Straight Edge Alignment, Precision Straight Edge Alignment, Dial Indicator Alignment, Reverse Dial Indicator Alignment, Rim and Face Alignment, Face to Face Alignment, Jack Shaft Alignment, Coupling Alignment, with a major emphasis placed on Laser Alignment. We will teach the participants how to calculate the misalignment error by the following methods: Graphical Alignment, Mathematical Formulas Alignment, Computer Assisted Alignment and using the Laser with its on board computer to calculate the error.

Precision Maintenance

This course is designed to bring many of the maintenance subjects together, and applying these various technologies to machinery maintenance.

Topics to be covered include: Machinery Measurement; Belt and Chain Alignment Techniques; Tensioning Procedures and Belt Standards; Installing and Adjusting Chain Tensions; Spot Radiometers and Strobe Lights as Inspection Tools; Soft Foot Testing; Vibration Analysis; Unbalance as a Machinery Running Problem; Heat Thermography as a Machinery Inspection Tool and Trending Equipment Failures; Ultrasonic Analysis as a Precision Maintenance Tool; and Importance of Record Keeping in a Precision Maintenance.