Prospectus

SCHOOL OF TECHNICAL STUDIES



Gateway to Industry

www.srimatitechno.org

ISO: 9001-2015 Certified Institution



director's desk



Good leaders are made not born. If you have the desire and willpower, you can become an effective leader. Good leaders develop through a never ending process of self-study, education, training and experience.

Srimati Techno Institute always believes in providing education in an innovative way so that future aspirants can learn without taking any kind of psychological stress.

Our basic motto is to minimize the gap between theoretical and practical aspects so that our students can gain ample experience while there in a learning curve.

I don't believe in note based education, I believe students should concentrate more on conceptual aspects.

At the end I wish all the very best for their bright future.

B.N. PATI DIRECTOR SRIMATI TECHNO INSTITUTE

About Us

Srimati Techno Institute

(formerly National Techno Institution)

was established in the year 1989 by a group of professionals and academicians from various field of specialization with the common objects and strong commitments to the growth and promotion of technical experts for solving the unemployment problem all over India. STI believes that a developing nation like India should have its human resources trained cutting edge technology. The Institution has been planned accordingly to provide budding ambitious young experts with state-of-the technologies to meet the challenging scenario of the new millennium. The importance of job oriented courses has become the main focus of academic programme at Srimati Techno Institute. The curriculum, meticulously selected and prescribed by technical experts and professionals of different disciplines are in parity of ITI. STI has been brought under the canopy of Srimati Techno Foundation Pvt Ltd and has been awarded ISO : 9001-2015 Certification in the year 2018 for quality Education in Management. STI mission is to provide customized educational programs in an environment that's diverse and conducive to learning. The institution is committed to deliver the best in education, academic research and training through professional partnership programs. The management is committed to honoring the skills of every student and to prepare the younger generation to face the challenges of today's global society and work environment. The vision is to be one of the premier institutes providing cutting edge education that transforms the younger generation towards being socially responsible and mould them to acquire finer value systems in their professional and personal lives.

Our Credential

- An unit of Srimati Techno Foundation (P) Ltd.
- Srimati Techno Institute is an ISO 9001-2015 certified Institute for its quality education & Management system.
- Srimati Techno Institute is a Member of National Safety Council of India Since the Year 2012.
- Srimati Techno Institute having strategic tie-up with NIFS, Vizag in technical collaboration with Annamalai University for All Safety Management Courses.
- Srimati Techno Institute affiliated to West Bengal State Council of Technical & Vocational Education & Skill Development for NSQF Courses Multimedia & Animation and CHN.
- Institute having Corporate Association with 100% placement Assistance such as: Reliance, L&T, Bridge & Roof, Voltas, Samsung India, Bajaj Automobile.

ELECTRICIAN (Wireman & Supervisor)

This course aims at acquainting the Students with the knowledge of both Domestic and Industrial wiring and armature winding of all types of electrical machines such as all types of AC & DC Fan, Motor (Single & Poly Phase) & Generator with the help of thorough classroom theoretical and practical training.

The work of an electrician is versatile, challenging and turns alive the art of creating in one self. They not only have the responsibility to draw electrical layout, design and install, but to see other aspects of the electrical jobs also, like an electrician supervises and controls the usage, purchase and costing, the development and completion of a wiring project.

A trained electrician is also capable of repairing and maintaining different electrical appliances.

ELE-101 Trade Theory

- Occupational Safety & Health
- Tools

Year

- Fundamentals of Electricity
- Solders
- NAC Code, Wire & Cable
- Ohm's Law & Resistors
- Common Electrical Accessories
- Principles & Laws of electrolysis
- ALLIED TRADES :
- Marking & filing practice
- Drilling & Grinding practice
- Bending of Sheet Metals
- Magnetism
- D.C. MACHINES:
- Motor & Generator
- D.C. Motors
- Insulating Materials
- Electrical Wirings
- Earthing
- Alternating Current
- Transformer
- Alternator
- Electrical Measuring Instrument
- Light

ELE-102 Workshop Calculation & Science

- Unit Conversion
- Algebra
- Metal
- Mass, Density
- Motion
- Force
- Powers, Roots
- Ratio & proportion
- Work, Power & Energy
- Percentage
- Profit & Loss
- Machine
- Mensuration
- Geometry
- Mensuration 3D
- Trigonometry
- Heat
- Graphs
- Work & Energy
- Effect of Force
- Current Electricity

ELE-103 Trade Practical

- First Aid
- Electrician Tools
- Soldering
- Cable
- Bridge Circuit
- Electrical Accessories Installation
- Cell
- Battery
- Fittings
- Drill
- Marking & cutting tools
- CRO
- Measurement of resistance by different methods
- Electrical appliances Rewinding assembly
- Identification and study of the parts of a D.C. machine
- D.C. Generator
- DC Motors
- Control of motors
- Electric Wirings
- Practice on Earthing
- Alternating Current
- Transformer
- Alternators Electrical Measuring Instruments
- Lights

ELECTRICIAN (Wireman & Supervisor)

1 Year



ELE-104 Engineering Drawing

- Introduction to Engineering Drawing
- Geometrical construction
- Lettering practice
- Line
- Projection
- Sectional View
- Orthographic View
- Simple Isometric Drawing
- Free hand sketching of nuts & bolts
- Free hand sketching
- Symbols used in electrical circuits
- Calling bell electromagnet
- Machines with 3 point starter
- Sketching of electrical components • Blue print reading of connection to motors through Ammeter
- Diagram & Sketching of connection to squirrel cage induction motor
- Sketching of different shapes of Coil & AC Motor
- Drawing the development diagram for D.C. Motor

ELE-105 Employability Skills

- I.T. Literacy
- Basics of Computer
- Windows
- MS Office
- Internet
- Web Browser

English Literacy

- Pronunciation
- Listening
- Speaking
- Reading
- Writing

Communication skills

- Communication Skills
- Motivation
- Time Management
- Facing Interviews
- Behavioural Skills

Entrepreneurship Skill

- Ecosystem
- Pollution
- Energy Conservation
- Global warming
- Ground Water
- Environment

Occupational Safety, Health & Environment

- Safety & Health
- Occupational Hazards
- Accidents & Hazards
- First Aid
- Basic Provisions

Labour Welfare Legislation

Welfare Acts

Quality tools

- Quality consciousness
- Quality Circles
- Quality Management System
- House Keeping

CV Building Workshops Interview Preparation Work Experience Briefing & Debriefing

Mock Interviews Career with Employers Visits

Young First Aider

Local employers assist with many of these activities and offer young people an invaluable source of business expertise, advice and support.



ADVANCE ELECTRICIAN

AELE-101 Trade Theory (Step-I to Step-IV)

STEP - I

2 Year

- Occupational Safety & Health
- Tools
 Eundamontals of
- Fundamentals of Electricity
- SoldersNAC Code, Wire and Cable
- Ohm's Law & Resistors
- Common Electrical Accessories
- Principles & Law of electrolysis
- ALLIED TRADES :
- Marking & filing practice
- Drilling & Grinding practice
- Bending of Sheet Metals
- Magnetism
- D.C. Machines:
- Motor & Generator

STEP - II

- D.C. Motors
- Insulating Materials
- Electrical Wiring
- Earthing
- Alternating Current
- Transformer
- Alternator
- Electrical Measuring Instrument
- Light

STEP - III

- Transformer Winding
- D.C. Machine Winding
- Synchronous Motor
- Induction Motor
- A.C. Machine Winding
- Converter-Inverter
- Layout of Conduit
- Fuse & Relays
- Industrial Wiring
- Lightning
- Basic Electronics

STEP - IV

- Explanation and importance of D.C. Rectifier circuit
- Transistors
- Amplifier
- Explanation of Oscillator
- Working principles and applications -Timer
- Basic concept of ICS, U.J.T., F.E.T., & power electronics devices
- D.C/ A.C Power control using power transistor, thyristor, Voltage stabilizer, U.P.S.
- Digital Electronics
- Complete House-wiring layout
- Decorative Lighting

AELE-102 Workshop Calculation & Science (Step-I to Step-IV)

STEP - I

- Unit Conversion
- Algebra
- Metal
- Mass, Density
- Motion
- Force
- Power RootsRatio & proportion
- Work, Power & Energy
- Percentage
- Profit & Loss
- Machine
- Mensuration
- Geometry
- STEP II
- Mensuration 3D
- Trigonometry
- Heat
- Graphs
- Work & Energy
- Effect of Force Current Electricity
- STEP III
- Logarithm
- Materials
- Mensuration
- Trigonometric function
- Force & Pressure
- Indices
- Simple Machine
- **STEP IV**
- Estimation
- Magnet
- Electricity
- Power
- Rectifier
- Digital Number System

ADVANCE ELECTRICIAN

AELE-103 Engineering Drawing

STEP - I

- Introduction to Engineering Drawing
- Geometrical construction
- Lettering practice
- Line
- Projection
- Sectional View
- Orthographic View
- Simple Isometric Drawing
- Free hand sketching of nuts & bolts
- Free hand sketching
- Symbols used in electrical circuits
- Calling bell electromagnet
- Sketching of D.C. motor
- with 3 point starter

STEP - II

- Sketching of electrical components
- Blueprint reading of connection to motors through Ammeter
- Diagram & Sketching of connection to squirrel cage induction motor
- Sketching of different shapes of Coil & AC Motor
- Drawing the development diagram for D.C. Motor

STEP - III

- Practice in reading panel diagram
- Drawing the development diagram for simple lap & wave winding
- Tracing of wiring diagram
- Drawing the schematic diagram of different electrical instruments
- Layout diagram of a substationSingle line diagram of substation
- feeders & electronic components
- Drawing of B.I.S/I.S.I symbols
- for Electronic devices.
- Circuit diagram of Amplifier
- Free hand drawing of Logic gates
- Schematic drawing of House Wiring

AELE-104 Trade Practical

STEP - I

- First Aid
- Electrician Tools
- Soldering
- Cable
- Bridge Circuit
- Electrical Accessories Installation
- Cell
- Battery
- Fittings
- Drill
- Marking & cutting tools
- CRO
- Measurement of resistance
 by different methods
- Electrical appliances
 Rewinding assembly
- Identification and study of the parts of a D.C. machine

STEP - II

- D.C. Generator
- DC Motors
- Control of motors
- Electric Wirings
- Practice on Earthing
- Alternating Current
- Transformer
- Alternators Electrical Measuring Instruments
- Lights

AELE-104 Trade Practical

2 Year

STEP - III

- Transformer Winding
- Winding
- Starting
- Induction Motors
- Forma
- M-G set
- Fuses
- Wiring
- Lightening

STEP - IV

- Study of Rectifier Circuit with different wave shapes & their values using C.R.O
- Study of a transistor Construction, Characteristics & Testing
- Study of amplifier & checking procedure
- Study of oscillator Voltage & Measurement
- Study of various. Amplifier Application & Timers
- Study of Circuit containing through various electronics components
- Power control circuits
- Voltage stabilizer & Study of DC. / AC. Motor Drives
- Digital Electronics
- Practice in wiring,
- maintenance & installationFault finding practice

Occupational Safety,

Occupational Hazards

Accidents & Hazards

Safety & Health

Basic Provisions

Labour Welfare

Legislation

Welfare Acts

Quality tools

System

House Keeping

Quality consciousness
Quality Circles
Quality Management

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First Aid

Health & Environment

AELE-105 Employability Skills

I.T. Literacy

- Basics of Computer
- Windows
- MS Office
- Internet
- Web Browser

English Literacy

- Pronunciation
- Listening
- Speaking
- Reading
- Writing

Communication skills

Entrepreneurship Skill

Energy Conservation

Global warming

Ground Water

Environment

Communication Skills

Time Management

Facing Interviews

Behavioural Skills

Motivation

Ecosystem

Pollution

FITTER & TURNER



1 Year

FT-101 Trade Theory

- Introduction of First aid
- Safety
- Bench vice construction
- Files
- Marking off and layout tools
- Calipers
- Marking mediaSurface plate
- Physical properties of engineering metal
- Drilling processes
- Micrometer
- Vernier
- Drill holding devices
- Safety precautions to be observed in a smith shop, forge - necessity, description uses
- Anvil and swage blocks
- Measuring and checking tools
- Heat treatment
- Safety precautions to be observed in a sheet metal workshop
- Marking and measuring tools
- Solders
- Rivets
- Safety-importance of safety and general precautions observed in a welding shop
- Hand tools: Hammers, welding description, types & uses
- Lathe & Other Tools
- Chucks
- Turning
- TaperScrew
- Drill
- Grinder
- Gauge
- Iron
- Steel
- Screw Threads
- Dies
- Counter & Reamer
- ScrapersMicrometer
- Indicator
- Preventive maintenance

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This course aims in acquainting the students with the working knowledge of different types of fitting operation & Process and Fitting equipments-Lathe & Drill machine, Basic Parts and different operation. Apart from this use of various cutting tools and measuring equipments are also being trained.

FT-102 Workshop Calculation & Science

- Metals
- Arithmetic
- Fraction & Decimal
- Units
- Motion
- Exponents
- Work, Energy & Power
- Percentage
- Stress & Strain
- Ratio & Proportion
- Simple machines
- Algebra
- Exponent
- Pressure gauge
- Logarithms
- Geometry

FT-103 Trade Practical

- Introduction
- Sawing & Marking
- Filing
- Marking
- Fitting
- Chipping
- Fitting & Chamfering
- Saw
- File
- Punch
- Forging
- Joints
- Sheet metal
- Welding
- True job on four jaw
- Lathe operations
- Cut grooves
- Bore holes
- Turn taper (internal & external)
- Threading Practice
- Drilling
- Fittings
- File fit
- Sheet metal work
- Tap
- Nuts, Bolts & Thread
- Bearing
- Dovetail Fitts
- Dies
- Assembly of machine parts

FT-104 Engineering Drawing

- Introduction
- Lettering
- conventional symbols for materials
- Drawing instruments
- Types of lines
- Geometrical construction

Sketching of trade related

hand tools & measuring tools

• Pictorial views of machine parts

Ecosystem

Pollution

Entrepreneurship Skill

Energy Conservation

Occupational Safety,

Occupational Hazards

Accidents & Hazards

Health & Environment

Global warming

Safety & Health

Basic Provisions

Labour Welfare

Legislation

• Welfare Acts

Quality tools

Quality Circles

House Keeping

System

Quality consciousness

Quality Management

First Aid

Ground Water

Environment

Free hand sketching

Types of Projection

Surface development

FT-105

Employability Skills

- Scale
- Dimensioning
- Projection

Sketches

Section

I.T. Literacy

Windows

MS Office

Internet

Web Browser

English Literacy

Communication skills

Communication Skills

• Time Management

Facing Interviews

Behavioural Skills

Pronunciation

Listening

Speaking

Reading

Writing

Motivation

Basics of Computer

Projection

ADVANCE FITTER

AFT-101 Trade Theory

STEP - I

- Introduction of First aid
- Safety
- Bench vice construction
- Files
- Marking off and layout tools
- Calipers
- Marking media
- Surface plate
- Physical properties of engineering metal
- Drilling processes
- Micrometer
- Vernier
- Drill holding devices
- Safety precautions to be observed in a smith shop, forge - necessity, description uses
- Anvil and swage blocks
- Measuring and checking tools
- Heat treatment
- Safety precautions to be observed in a sheet metal workshop
- Marking and measuring tools
- Solders
- Rivets
- Safety-importance of safety and general precautions observed in a welding shop
- Hand tools: Hammers, welding description, types & uses

STEP - II

- Lathe & Other Tools
- Chucks
- Turning
- Taper
- Screw
- Drill
- Grinder
- Gauge
- Iron
- Steel
- Screw Threads
- Dies
- Counter & Reamer
- Scrapers
- Micrometer
- Indicator
- Preventive maintenance



AFT-101 Trade Theory

STEP - III

- Keys and key ways
- Spring-material types and uses
- Bolts and Nuts
- Washers
- Scraper
- Dowel pins
- Screws
- Testing scraped surfaces
- Files
- System of drill size
- Gauges
- Limit gauge
- Slip gauge
- Locking device
- Lapping
- Honing
- Interchangeability
- Systems of fits and limits
- Bearing
 - Needle bearings
 - Materials for bearing

STEP - IV

- Case hardening & carburizing
- Solder and soldering
- Drilling
- Pipes and pipe fitting
- Standard pipe fitting
- Fire precautions
- Working material with finished surface
- Aluminium
- Keys and cotters
- Belts
- Couplings
- Pulleys
- Gears
- Wheels
- Lubrication and lubricants
- Installation & Maintenance of machinery
- Washers
- Foundation bolt

AFT-102 Workshop Calculation & Science

2 Year

STEP - I

- Metals
- Arithmetic
- Fraction & Decimal
- Units
- Motion
- Exponents
- Work, Energy & Power
- Percentage
- Stress & Strain
- Ratio & Proportion

Simple machines

Pressure gauge

• Mensuration 3D & 2D

STEP - II

Algebra

• Exponent

Logarithms

Geometry

STEP - III

Trigonometry

STEP - IV

Force by Vector

Heat

Force

Friction

Magnet

Pulley

Graphs

Metal

Electricity

Solid figures

Electronics

Stress & Strain

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ADVANCE FITTER

AFT-103 Engineering Drawing

STEP - I

- Introduction
- Lettering
- Conventional symbols for materials
- Drawing instruments
- Types of lines
- Geometrical construction
- Free hand sketching
- Scale
- Dimensioning
- Projection
- Sketching of trade related
- Hand tools & Measuring tools
- STEP II
- Sketches
- Projection
- Types of Projection
- Pictorial views of machine parts
- Section
- Surface development

STEP - III

Screw thread

- Sketches for bolts & nuts
- Rivet
- Types of Riveted Joints
- Keys, Cotter & Pin points
- Assembly drawing & detailing
- Shaft & Pulley
- Bush Bearing
- Coupling
- Hand vice

STEP - IV

- BluePrint Reading
- Missing symbols & Missing views
- Missing section
- Types of bearings
- Electronic Symbols
- Estimation of materials
- Implant training

I.T. Literacy

Windows

MS Office

Internet

• Web Browser

Welfare Acts

Basics of Computer

Labour Welfare Legislation

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AFT-104 Trade Practical

STEP - I

- Introduction
- Sawing & Marking
- Filing
- Marking
- Fitting
- Chipping
- Fitting & Chamfering
- Saw
- File
- Punch
- Forging
- Joints
- Sheet metal
- Welding

STEP - II

- True job on four jaw
- Lathe operations
- Cut grooves
- Bore holes
- Turn taper
- (internal and external)
- Threading Practice
- Drilling
- Fittings
- File fit
- Sheet metal work
- Tap
- Nuts, Bolts & Thread
- Bearing
- Dovetail Fitts

Communication skills

Communication Skills

Time Management

Facing Interviews

Behavioural Skills

Dies

AFT-105

Employability Skills

Motivation

English Literacy

Pronunciation

Listening

Speaking

Reading

Writing

• Assembly of machine parts

AFT-104 Trade Practical

STEP - III

- Prepare female end fit
- Make dey and keyways
- on the shaft and fit • Riveted joints
- Drilling
- Scrap on surfaces
- Dowel pins
- Testing of sliding fitting job
- Fitting
- Drill & Reaming
- Snap gauge
- Scrap
- Gap gauges
- Cotter jib assembly
- Sine bar
- Ferrous metals spark test

STEP - IV

- Fitting
- Lapping
- Drilling & Threading
- Pipes and pipe joints
- Valves
- Fire extinguishers

• Exercises on finished material

drilling and tapping brass and

Assembly of parts working to

detail and arrangement

Geometrical shaped fittings

Prepare different types

Inspection and Accuracy

testing of Machine tool

Repairing of machinery

• First Aid

Occupational Safety, Health & Environment

• Accidents & Hazards

Quality consciousness

Quality Management System

Safety & HealthOccupational Hazards

Basic Provisions

Quality tools

Quality Circles

House Keeping

of documentation

Power transmission

• Marking out, filing to line,

Screw cutting

copper jobs

Dovetail slides

Gear

Entrepreneurship Skill

Energy Conservation

Global warming

Ground Water

Environment

Ecosystem

Pollution

Vernier protractor

MECHANIC REFRIGERATION & AIR CONDITIONING

The refrigeration and air conditioning repairing & maintenance course aims at rewarding careers in the respective Refrigeration & AC Industry in different job activities such as manufacturing, servicing both maintenance and repairing. The following course curriculum is designed to acquaint a learner with the various aspects of repairing and servicing of cooling items.

RAC-101 Trade Theory

REFRIGERATION SYSTEMS

- Conventional & Frost Free Fridge
- Deep Fridge
- Water & Air Cooler
- AIR CONDITIONING SYSTEMS
- Study of air
- Humidifier and dehumidifier
- Window Ac
- Split Ac (Conventional & inverter model)
- Car Ac
- Tower & Cassette AC
- Central plant (ductable)
- HVAC System (P.P.T Mode).

APPLIANCES

- Washing machine
- Microwave oven
- BASIC ELECTRICITY
- Introduction
- Motor Control Devices
- Relay
- Motor



RAC-102 Workshop Calculation & Science

- Units
- Simplifications
- Square Roots
- Ratio and Proportion Percentage
- Algebra
- Mensuration
- Metals



RAC-104 Engineering Drawing

1 Year

 Drawing instruments and their uses

- Sheet layout and sketching
- Lines, lettering & dimensioning Scales
- Geometrical construction
- Orthographic Projection

RAC-105

Employability Skills

- Isometric Projection
- Conversion of pictorial views into orthographic views

RAC-103 Trade Practical

- Safety precaution
- & Service tools
- Refrigeration &
- A.C. Raw Materials
- Refrigeration and A.C. System
- Dismantling of Compressor
- Servicing of Compressor Test Board
- Welding process and tools
- Condenser
- **Evaporator**
- Motor Control
- **Electrical Wiring**
- Handling of Gas Cylinder
- Oil and Gas Charging
- Gas Charging
- Leak test
- Servicing of cabinet
- AC System
 - Assembling, Installation, Maintenance & Servicing with trouble shooting
- Basic Electricity
- Mechanical Workshop Practice

I.T. Literacy

- Basics of Computer
- Windows
- MS Office
- Internet • Web Browser
- English Literacy
- Pronunciation
- Listening
- Speaking
- Reading
- Writing

Communication skills

- Communication Skills
- Motivation
- Time Management
- Facing Interviews
- Behavioural Skills

- Entrepreneurship Skill
- Ecosystem
- Pollution
- Energy Conservation
- Global warming
- Ground Water Environment

Occupational Safety, Health & Environment

- Safety & Health
- Occupational Hazards
- Accidents & Hazards
- First Aid
- Basic Provisions

Labour Welfare

- Legislation Welfare Acts

Quality tools Quality consciousness

Quality Circles

System House Keeping

Quality Management

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2 Year

AUTOMOBILE MECHANIC



This course aims at rewarding the students with careers in each of the three activities of Automobile Industry, like manufacturing, servicing both maintenance and repairing. The following course curriculum is designed to acquaint a learner with the various aspects of repairing and servicing of two, three and four wheelers.

ATME-101 Trade Theory

4 WHEELER TECHNOLOGY

- Introduction
- Brake Testing
- Clutch
- Clutch linings
- Gear Box
- Universal joints & propeller shaft
- Rear Axle Assembly
- Engine
- Fuel supply system
- Fuel Injectors
- Battery
- Electrical systems
- Over hauling Dynamo Alternator
- Self starter
- Motor Vehicle Act.
- Service station Equipments & wheel Balancing
- Car Air conditioning system -Repair and maintenance
- EURO System
- Flow Chart
- Remedies
- Magneto and Current Generation
- Basic Electrical & Electronic Work
- Engine Tuning
- Accessories and Controls
- Wheel and Tyres
- Motor Vehicle Act



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ATME-102 Workshop Calculation & Science

- Units
- Simplifications
- Square Roots
- Ratio and Proportion
- Percentage
- Algebra
- Mensuration
- Metals

ATME-103 Engineering Drawing

- Drawing instruments and their uses
- Sheet layout and sketching
- Lines, lettering & dimensioning
- Scales
- Geometrical construction
- Orthographic Projection
- Isometric Projection
- Conversion of pictorial views into orthographic views



ATME-104 Trade Practical

4 WHEELER ENGINE SYSTEM

- Servicing and Lubrication
- Major assemblies of a vehicle
- Locking devices
- Wheels and Tyres
- Suspension System
- Steering System
- Brake System
- Trouble tracing in braking System
- Clutch Unit
- Gear Box
- Universal Joints
- Rear axle assemble
- Engine
- Fuel Feed System

- Engine Decarbonising
- Engine Overhauling
- Cooling System
- Lubrication System
- Ignition System
- Fuel Supply System
- Fuel Injectors
- Electrical System
- Overhauling Dynamo
 /Alternator
- Starter SystemStorage Battery
- Service station
- equipment & wheel balancing
- Legal awareness

Entrepreneurship Skill

• Energy Conservation

Occupational Safety,

Occupational Hazards

Labour Welfare Legislation

• Quality Management System

Quality consciousness

• Accidents & Hazards

Health & Environment

Global warming

• Safety & Health

Basic Provisions

Welfare Acts

Quality tools

• Quality Circles

House Keeping

• First Aid

Ground Water

Environment

Ecosystem

Pollution

ATME-105 Employability Skills

I.T. Literacy

- Basics of Computer
- Windows
- MS Office
- Internet
- Web Browser

English Literacy

- Pronunciation
- Listening
- Speaking
- Reading
- Writing

Communication skills

- Communication Skills
- Motivation
- Time Management
- Facing Interviews
- Behavioural Skills

AUTOMOBILE TECHNICIAN

The automobile technician course is a repairing & maintenance course that aims at rewarding careers in each of the following mentioned activities like - manufacturing, servicing both maintenance and repairing. The following course curriculum is designed to acquaint a learner with the various aspects of repairs and servicing of two & three wheelers.

AUT-101 **Trade Theory**

2 & 3 WHEELER TECHNOLOGY

- Introduction
- General Safety & Fire Fighting
- Tools & Equipments
- Chassis and Frame
- Front Axle
- Suspension System and Springs Clutch System
- Transmission System
- · Gear and Gear Boxes
- Final Drive and Rear Axle
- Brakes & Braking System
- Steering Mechanism
- Engine
- Engine Parts
- Cooling Methods
- Carburetor
- Ignition System
- Batteries and Starters
- Megneto and Current Generation
- Basic Electrical & Electronic Work
- Engine Tuning
- Accessories and Controls
- Wheel and Tyres
- Motor Vehicle Act

AUT-102 Workshop Calculation & Science

Units Simplifications

- Square Roots
- Ratio and Proportion
- Percentage
- Algebra
- Mensuration
- Metals



AUT-103 Trade Practical

2 & 3 WHEELER TECHNOLOGY

- Introduction and safety Training
- Safety rules and their use
- Tools and Equipments
- Ignition Systems
- Batteries and self starters
- Magneto and current Generation
- Wiring systems & control Equipments
- Suspension
- **Brakes**
- Engine Work
- Decarbonising
- Transmission Work
- Gear Shifting Mechanism
- Comparison
- Fault Diagnosis in Engine
- Service Station Equipments

1 Year

AUT-104 Engineering Drawing

- Drawing instruments and their uses
- Sheet layout and sketching
- Lines, lettering & dimensioning Scales
- Geometrical construction
- Orthographic Projection
- Isometric Projection

Quality consciousness

Quality Management System

Ouality Circles

House Keeping

 Conversion of pictorial views into orthographic views

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AUT-105 Employability Skills

I.T. Literacy

- Basics of Computer
- Windows
- MS Office
- Internet
- Web Browser

English Literacy

- Pronunciation
- Listening
- Speaking
- Reading
- Writing

- Communication skills
- Communication Skills
- Motivation
- Time Management
- Facing Interviews
- Behavioural Skills

Entrepreneurship Skill

- Ecosystem
- Pollution
- Energy Conservation
- Global warming
- Ground Water
- Environment

Quality tools Occupational Safety,

- Health & Environment
- Safety & Health
- Occupational Hazards
- Accidents & Hazards
- First Aid Basic Provisions

Labour Welfare

Legislation Welfare Acts

WELDER

This course aims in acquainting the students with the working knowledge through theoretical as well as practical orientation. The contents are sequenced according to the practical exercises contained in the manual of trade practical. This corelation is maintained to help the students to develop the perceptional capabilities needed for performing the skills.

WEL-101 Trade Theory

 Common gases used for welding

Year

- Manufacturing method
- Oxygen cylinder & D.A. Cylinder
- Welding Technique
- Cast iron determination of weld ability
- Welding symbols
- Electrical terms & definition • Necessity of
- Arc-Welding machine Arc welding
- Arc blow
- Types of joints
- Electrodes
- Distortion
- Faults in welding (Arc & Gas)
- Pipe welding
- Hard Facing
- Gas cutting
- Tools
- Grinding
- Drilling
- Filling
- TIG Welding
- MIG Welding

WEL-102 Workshop Calculation & Science

- Units
- Simplifications
- Square Roots
- Ratio and Proportion
- Percentage
- Algebra
- Mensuration
- Metals

WEL-103 Trade Practical

- Arc Welding
- Projects
- Gas Welding
- Projects
- Gas Cutting
- TIG Welding Position (Argon)
- Argon Welding
- CO₂, MIG Welding Position
- MIG Welding
- Projects

WEL-105 Employability Skills

I.T. Literacy

- Basics of Computer
- Windows
- MS Office
- Internet
- Web Browser
- English Literacy
- Pronunciation
- Listening
- Speaking
- Reading
- Writing

Entrepreneurship Skill Ecosystem

Motivation

- Pollution
- Energy Conservation

Communication skills

Communication Skills

• Time Management

Facing Interviews

Behavioural Skills

- Global warming
- Ground Water
- Environment

Occupational Safety,

- Labour Welfare
- Legislation
- Welfare Acts

Quality tools

- Quality consciousness
- Quality Circles
- Quality Management System
- House Keeping

• Lines, lettering & dimensioning Scales Geometrical construction Orthographic Projection Isometric Projection Conversion of pictorial views into orthographic views

Sheet layout and sketching

WEL-104

Engineering

Drawing

Drawing instruments

and their uses



- Health & Environment Safety & Health Occupational Hazards
- Accidents & Hazards
- First Aid
- Basic Provisions

MOBILE PHONE TECHNICIAN

This course aims at acquainting the students with the chip level repairing of electronic components and assembling, servicing, maintenance technique through theoretical and practical training. They conceive repairing process and develop circuit designs for the servicing of telecom systems.

MPR-101 The Principles of **Basic & Digital Electronics**

- Introduction
- Fundamental of Electricity
- Work, Energy & Power
- Cell & Battery
- Measuring Instrument
- Magnetism
- A. C. Fundamentals

PASSIVE

- **ELECTRONICS COMPONENTS** • Types of components
- Resistor
- Capacitor
- Inductor
- Transformer
- ACTIVE

ELECTRONICS COMPONENTS

- Semiconductor Physics & Transistors
- Junction Diode
- Power Supply
- Resonance & Filter Circuits
- Filler Ckt.
- Transistor
- Integrated Ckts
- Amplifiers
- Oscillators
- SMD Micro Components
- **DIGITAL ELECTRONICS**
- Number System
- Logic Gates
- Logic Families
- Combinational Logic Sequential Logic
- Digital System
- Memory



MPR-102 Trade Theory

- **Telephone Receiver**
- Phone System
- Mobile Phone
- Mobile &
- Personal Communication Mobile Telephone
- Various Modules

MPR-103 Trade Practical

- Safety & First Aids
- Multimeter
- Electronic Test &
- Measuring Equipments
- PCB Concept
- Soldering
- Power Supplies
- Logic Gates

MPR-104 Trade Practical

- Mobile Phone Systems
- Multimedia Mobile Systems
- Software
- **Application Software**

MPR-105 Employability Skills

6 months

I.T. Literacy

- Basics of Computer
- Windows
- MS Office
- Internet
- Web Browser

English Literacy

- Pronunciation
- Listening
- Speaking
- Reading

Communication skills

- Time Management

- Labour Welfare Legislation

Entrepreneurship Skill

Energy Conservation

Occupational Safety,

Occupational Hazards

• Accidents & Hazards

Health & Environment

Global warming

Safety & Health

Basic Provisions

Ground Water

Environment

Ecosystem

Pollution

• Welfare Acts

First Aid

Quality tools

- Quality consciousness
- Quality Circles
- Quality Management System
- House Keeping

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- Writing

- Communication Skills
- Motivation
- Facing Interviews
- Behavioural Skills

CIVIL DRAUGHTSMAN

This course aims to Impart the working knowledge to the students about building materials and construction, techniques of both conventional and innovative nature. It enlightens their concept of building plan and develop designs for the construction and renovation of buildings and structures.

CIV-101 Trade Theory

Building Materials

Year

- Building Drawing & Technique
- Foundation
- Walls
- Planning and Design of Building
- MasonryWater Proofing Treatment
- Water Proofing Treatmen
 Arches and Lintels
- Stairs
- Door & Windows
- Fittings and Fixtures

CIV-102 Workshop Calculation & Science

- Units
- Simplifications
- Square Roots
- Ratio and Proportion
- Percentage
- Geometry
- Algebra
- Bending moments and shearing forces
- Mensuration
- Trigonometry
- Metals
- Heat Treatment
- Mass and Density
- Force
- Velocity and speed
 Heat
- Work, Power & Energy

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CIV-103 Trade Practical

- Introduction of Training
- Signs and Symbol
- Foundation
- Floors
- Arches & Lintels
- Carpentry Joints
- Doors & Windows
- Upper Floors
- Stair
- Building Bye Laws
- Plan & Layout
- Perspective Views
- Electrical

I.T. Literacy

Windows

MS Office

Internet

Listening

Speaking

Reading

Writing

Motivation

Web Browser

Pronunciation

English Literacy

Communication skills

Communication Skills

Time Management

Facing Interviews

Behavioural Skills

Basics of Computer

- Working Drawing
- Business Studies

CIV-105 Employ<u>ability Skills</u>

Entrepreneurship Skill

- Ecosystem
- Pollution
- Energy Conservation
- Global warming
- Ground Water
- Environment

Occupational Safety,

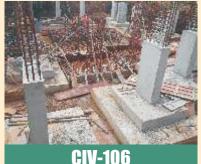
- Health & Environment
- Safety & Health
- Occupational Hazards
- Accidents & Hazards
- First Aid
- Basic Provisions
- Labour Welfare
 - Legislation
 - Welfare Acts

Quality tools

- Quality consciousness
- Quality Circles
- Quality Management System
- House Keeping

CIV-104 Engineering Drawing

- Drawing instruments & their uses
- Sheet layout and sketching
- Lines, lettering & dimensioning
- Scales
- Geometrical construction
- Curves used in engineering practice
- Orthographic Projection
- Projections of planes
- Projections of solids
- Isometric Projection
- Conversion of pictorial views into orthographic views
 AUTO CAD
- Introduction of CAD
- Methods to use a tool
- Workspace Switching
- Toolbars under Express Menu
- Applications of Menu Bars
- Uses of Function key & Windows key
- Windows Settings in Option
- Tool palettes
- Toolbars for 3D Solid Modeling
- View ports
- Generic lights
- Cameras & Visual styles
- Render

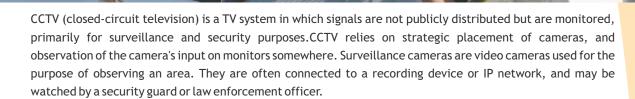


PROJECT

- Project Analysis
- Development
- Evaluation

CCTV TECHNICIAN

4 Months





Objective

- Maintaining perimeter security in medium- to high-secure areas and installations.
- Observing behavior of incarcerated inmates and potentially dangerous patients in medical facilities.
- Traffic monitoring.
- Overseeing locations that would be hazardous to a human, for example, highly radioactive or toxic industrial environments.
- Building and grounds security.
- Obtaining a visual record of activities in situations where it is necessary to maintain proper security or access controls (for example, in a diamond cutting or sorting operation; in banks, casinos, or airports).

Skills

Must possess required skills and be able to explain and demonstrate, with or without reasonable accommodations, that the essential functions of the job can be performed.

Personal qualities required in CCTV Professional

- Maintaining confidentiality of work related information and materials.
- Effective communication and interpersonal skills, including tact and diplomacy.
- Effective organization and planning skills.
- Maintain an established work schedule, including some evenings and weekends.
- Mechanical aptitude.
- Ability to communicate in a concise and effective manner.
- Ability to understand and follow instructions precisely.
- Ability to read blueprints, architectural, mechanical, and electrical documents.
- Ability to work independently.
- Ability to use test equipment such as multi-meter, signal tone generator, oscilloscope, time-domain reflect meter.
- Safely drive an ACC vehicle.

Job Description

Installing and Maintaining Equipment

CCTV technicians spend the majority of their time installing and maintaining CCTV systems. Additional duties include monitoring equipment, preparing purchasing requests for materials needed for each project and writing daily and monthly reports regarding maintenance work provided.

Troubleshooting Experience

Individuals working as CCTV technicians must have experience troubleshooting, assembling, disassembling, repairing and monitoring alarm system.



Eligibility Criteria: Madhyamik



P-101 - Trade Theory

Cctv Systems

- What are CCTV systems
- What are Security Systems
- How Television Works
- Television System



Cctv System Design

- Designing a CCTV System
- Aims of a surveillance camera system
- System design elements
- Conditions for equipment selections
- Camera Installation



Camera Selection

- Types of cameras used in CCTV systems
- Power Supply Systems
- Camera Performance
- Camera Functions
- Synchronization methods
- Camera Mounts

Lens Selection

- Angle of view settings
- Lens Mount
- Auto-Iris lens
- Types of lenses
- Lens Selection

Monitor Selection

- Monitors
- Reduced image scale on monitors
- Notes on monitor installation

Switcher Selection & Video Recording

- Sequential Switcher
- Multi-Viewer
- Matrix switcher
- Multiplexer
- Time-lapse VCR recordings
- Digital video recorders (DVRs)



Sensor Type S

- Infrared sensors
- Passive sensors
- Motion detectors





Networking

- Introduction to Networks
- The OSI Reference Model
- Networking Topology, Connectors and Wiring Standards
- Ethernet Specifications
- Network Devices
- TCP/IP
- IP Addressing
- Routing
- Switching and VLANs
- Wireless Networking
- Authentication and Access Control
- Network Threats
- Wide Area Networking
- Troubleshooting
- · Management,
 - Monitoring and Optimization

Remote -controlled Surveillance And Network Cameras

- Remote-controlled surveillance
- Network camera system

Video Signal and Control Signal **Transmission**

- Coaxial Cables
- Twisted-pair cable transmission
- Control signal circuits
- Electrical Power Construction Requirements
- Making Drawings
- Preparing block diagrams
- CCTV drawing Symbols

Chip level Repairing

- Basic Electronics : testing and identification of all basic electronics components through multimeter
- Block Diagrams of DVR & Tracing

P-102 - Trade Practical



Few of the Companies

- Rahul Computex Pvt. Ltd.
- Infoway pvt. Ltd.
- Adecco India
- Robotics Solutions
- Lalani Group
- Bhandari Automobiles
- EDP Soft
- Hightention Equipments Pvt. Ltd.
- SEPL
- Dateline Media Production
- Sublime Technologies
- Brilliant Webdesign
- D.K Instruments Pvt Ltd.
- SGA Consultancy Services
- Cognitive Technologies
- Maruti
- SD Group of Industries
- Amenity Appliances
- Bhandari AutoMobile
- Barun BeveragesLtd.
- A1 Mobile Service Centre
- Subhra Infoline Service
- Sree Tara Electronics
- India Industrial Enterprises Pvt. Ltd.
- LG
- Biiprism System
- Star Services
- French Motor Car Company Ltd.
- Electro Net Services

- JG Corpnet(OPC) Pvt. Ltd.
- S & S Erectors Pvt. Ltd.
- Karunamoyee Cooling Centre
- Sysnet Engineers
- EK Incorporation (India) Pvt. Ltd.
- Proviatek Informatics Pvt. Ltd.
- Service Plaza
- Mundra Solar
- Cryogenic Concern Pvt.Limited
- Last Peak Data Pvt. Ltd.
- Modern Electrical
- Titas
- Pritthy Enterprise Pvt. Ltd. (Voltus)
- Godrej
- Apex Services
- Lalani Infotech Itd.
- Vedika Machinery Pvt. Ltd.
- Swastik Automobile
- Chandrani Compliments & Exports Pvt. Ltd.
- Asian Paints
- Digital Care Pvt. Ltd.
- Sumit Mobile Service
- Weather Cool Centre
- Applied Eng. Services
- Starkmann Geschafte (India)
- LG
- Universal Energy Solution pvt. Ltd.
- Zen Enterprises
- French Motor Car Co. Pvt. Ltd.
- Dewars Garage

Rules & Regulation

APPLICATION PROCEDURE

A) Prospectus and application form can be obtained from any of the offices of Srimati Techno Institute

• HAZRA (H.O.): 114/2A, Hazra Road, Kol-26 (near Kalighat Fire Brigade)

• RAMPURHAT: Suryadaya Market Complex, 1st FI (Bharshala More), Birbhum

- DURGAPUR: SB More, Station Road, Durgapur-713301
- RANAGHAT : Rajdanga Road, Rathtala Bus Stand, Ranaghat, Nadia
- RAJARHAT : Rajarhat Super Market, opp. Rajarhat P.S., Kol-135
- BARUIPUR : Padmapukur, Kolkata-144, (Padmapukur More)
- BURDWAN : 297 BS, G. T. Road, Laxmipur (opp. Joramandir)
- B) The following documents must accompany the completed application form:
 - · Depending upon the eligibility criteria indicated against each course
 - · Photocopies of mark sheets of all examinations passed.
 - Six recent passport size photographs duly signed.

DISCIPLINE:

- 1. Student must remember that they are coming to an institute of repute where discipline and punctuality is strictly maintained. Therefore under no circumstances will indiscipline be tolerated.
- 2. Student must come to class properly with uniform dressed.
- 3. Student must always remember as 100-200 of them are assembling and dispersing after every two hour from 9am in the morning till 8 pm in the evening, unless they follow discipline and silence, the noise and commotion thus created will be a source of disturbance to all. Within the premises of institute students must move with the dignity.
- 4. Some of the amenities and facilities available in a formal Institute are missing here. We don't have no common room facility for students. Student should therefore come to class not earlier than 10 minutes before the commencement of their class to avoid congestion and noise in the lobbies and corridors.
- 5. Students should not gossip in the classes by talking loudly in the corridors and verandahs.
- 6. Students should at all times behave respectfully towards the principal, the teachers and all members of staff of the institute.
- In case students are waiting inside a classroom for the class to begin, they should be seated on the chairs provided for students and follow the previous classes notes silently. Under no circumstances should they sit at the teacher desk or on the tables.
- 8. Students should maintain the standard of cleanliness and neatness prevailing in the institute.
- To ensure that there is no wastage of electricity consumed. Students who attend classes should always remember to switch off all the lights and fans before leaving their classrooms and Practical Lab.
- 10. Attendance is strictly enforced and students are required to attend at least 85% of the theoretical and practical classes for a course "URGENT BUSINESS", "PRIVATE PURPOSE" is insufficient ground to be condoned. A student will not be allowed to appear in the final examination if he/she fails short of the required percentage except with the permission of the principal/administrator. Attendance below 75% will not be considered.
- Class routine, notice for public holidays, programmes for written practical & Oral Examination etc. will put up on the Notice Board. Students are advised to check the Notice Board regularly.
- 12.A student should maintain a decent & silent environment even after the class is over.
- 13. Cell phones in possession of students must be switched off as long as they are in the class and within the campus. However silent mode may be accepted provided no call is held during the class.

LEAVE A BREAK

- 1. The students will have to submit written application to the Principal/Course Coordinator/Centre Incharge for any leave/break,
- 2. Once the name of a student is entered into the attendance register, it will

be taken as granted that a batch has been allotted to him/her and the student is supposed to attend classes regularly.

- 3. If a student remains absent without approval, Centre is not liable to cover those classes or the course.
- Centre cannot be made liable for delay in completing the course due to leave/break/absentism or any other reason of the student.

FEES STRUCTURE

- Fee Schedule : The total course fee and the mode of payment of installments are tabulated in the admission guide, which is to be followed strictly.
- Fee payment : Student paying course fee in installment basis are required to pay their monthly tuition fee / installments in advance with the production of identity card on or before the 10th of every months. Fine of Rs. 50/- will be charged for the delay for the tuition fee.
- During long vacation all fees of current month or advance month have to be paid before vacation.
- A fine of Rs. 150/- will be charge in case of defaulter for two consecutive calendar months. Names will be struck off from the rolls at the end of the 3rd month if the fees are not paid for 3 consecutive months. Readmission will be permitted on payment of Rs. 500/- along with the arrears.
- Refund: Admission fee, session fee or tuition fee are not refundable at any circumstances. Whether the students continue his / her study or not.

EXAMINATION

- 1. Examination at STI: the examination process is an integral part of each Trade. Examinations are conducted by the STI Examining body as per stringent natural standard. The final examination will be held at the end of each module /subject / semester. Answer sheets are carefully evaluated and moderated by Internal and external agencies.
- 2. Rules in Examination Hall: Candidate must bring their Admit Card in the Examination Hall. No candidate will be allowed to appear in the examination without admit card. The Admit Cards are issued to each candidates at the office counter 7days before commencement of the Examination on production of their identity card and other requirements. Admit Card once issued will be valid for all the Examination papers for particular Trade and for that particular exam only.
- 3. Supplementary Examination In event a student unable to take the midterm final examination on Medical grounds or other exigencies with prior intimation in writing and subsequent permission from the Principal / Administrator, a supplementary Examination will be arranged against submission of fee of `500/-. The Examination will be held only once at a date scheduled by the office.

SYSTEM OF EVALUATION

A certificate of merit will be awarded to each student after passing the final examination. Student absent for appearing in any examination will be considered to have failed. Transcripts of grades for each Trade are based on the class works, periodical Tests, Mid-term Tests and final Examination.

Identity card and all the testimonials of studentship will have to be produced and submitted at the time of receiving Certificate.

FELLOWSHIP CARD

Fellowship Card can be obtained by the student after completion of the course. All benefits of Fellowship Card will be valid at STI Centre (Conditions apply).

HAZRA (H.O.) 114/2A, Hazra Road, Kolkata-26 (near Kalighat Fire Brigade) Re Ph: **92300 76099/94/95/97**

RAJARHAT Rajarhat Super Market, opp. Rajarhat P.S., Kol-135 Ph: **92300 62677**

> BARUIPUR Padmapukur, Kolkata-144, (Padmapukur More) Ph: **92300 62678**

• H.O. & Regd. Office

114/2B, Hazra Road, Near Kalighat Fire Brigade, Kolkata - 700 026 Phone : 033 2455 1387 / 2475 3387, Fax : (+91) 33 2475 2235 E-mail: srimatitechno@gmail.com | Website: www.srimatitechno.org Visit us at f/srimatitechnoinstitute