Personalized Learning Plan

# Start

# Receive Curriculum

User submits their curriculum.

# Define Learning Objectives

Key learning goals based on the curriculum.

# Outline Curriculum Overview

Topics and subtopics derived from the analysis.

# Create Study Schedule

Study Plan:  
  
Week 1-2:  
Objective: To learn the basics of pipe connections used in household and industrial systems (COB1)  
Activities:   
- Study plumbing in general household and industrial systems.  
- Basic pipe connections – Mixed pipe material connection.  
- Pipe connections with different joining components.  
- Making a small window frame with Lap and Mortise & Tenon Joints by sawing planing and cutting.  
- Introduction to power tools.   
  
Week 3-4:  
Objective: To educate the usage of welding equipment‘s and machining methods (COB2)  
Activities:   
- Fabrication of a small Table frame with Butt, Lap and Fillet Joints using Arc Welding.  
- Gas cutting (Demo)  
- Machining of a component using simple turning and drilling practices.  
- Foundry operations such as sand mold preparation for simple component.  
- Plastic Component Manufacturing (Demo on Injection / Blow moulding).  
  
Week 5-6:  
Objective: To impart knowledge on sand mould preparation for simple components (COB3)  
Activities: Continue with the machining and foundry operations from the previous weeks.   
  
Week 7-8:  
Objective: To explore various tools, instruments and methods used in electrical wiring (COB4)  
Activities:   
- Comparison of incandescent, fluorescent, CFL and LED lamps.  
- Domestic, staircase and go down wiring.  
- Measurement of earth resistance.  
- Study of protection devices (small relay, fuse, MCB, HRC, MCCB, ECCB).  
- Familiarization of household electrical gadgets (Iron Box, Wet Grinder).  
- Study of inverter fed UPS/Emergency lamp.  
  
Week 9-10:  
Objective: To impart knowledge onDesign, assembly and testing of electronic circuits (COB5)  
Activities:   
- Identifications and symbolic representation of active and passive electronic components.  
- Soldering and tracing of electronic circuits and checking its continuity.  
- Design and testing of electronic circuits using active and passive electronic components.  
  
Study Resources:  
- Text Book: S.Gowri and T.Jeyapoovan, ―Engineering Practices Lab Manual – Civil, Mechanical, Electrical, Electronics included‖, Vikas Publishing, 5th Edition, 2019.  
- References: SubhransuSekhar Dash & K.Vijayakumar, ―Electrical Engineering Practice Lab Manual‖, Vijay Nicole Imprints Private Ltd., First Edition, 2013. Raghbir Singh Khandpur, ―Printed Circuit Boards: Design, Fabrication, and Assembly‖, Tata McGraw -Hill Education, 2005.  
  
Note: The study plan is flexible and can be adjusted based on the student's progress and understanding of the topics. The plan also allows for additional time for revision and practice. The student is expected to spend approximately 30 hours on practicals.

# List Resources

Books, online courses, tools needed for studying.

# Plan Assessments

Include quizzes, assignments, and projects to evaluate progress.

# Implement Feedback Mechanism

Set up weekly check-ins and review self-assessment scores.

# Adjust Plan as Needed

Modify the schedule based on progress and feedback.

# Set Goals and Milestones

Define short-term and long-term goals.

# Additional Notes

Include any extra notes or considerations.

# End

Complete the learning plan.