

Exam Title: 8601320 Power and Energy Tech II

Courses Assessed by this Exam: Power and Energy Tech II

Key Vocabulary: output, people, capital, feedback, results, inputs, processes, Types of technology: assessment, emerging, communication, manufacturing. Trade-off, observation, prototype, drawing, modeling, building, testing, shading, drafting, scaling finishing, planning, molding, fabricating, designing, calculating, rendering, revising, hypothesis, tolerance, mock-up, standard, civil engineer, DOT, equipment, safety color code, class D, class K, dry chemical, cartridge unit, wet chemical extinguishers, sodium chloride extinguisher, toxins, spool, valve gear, directional valve, flywheel, solar energy, static energy, electrical energy, mechanical energy, biomass, geo thermal, British thermal, CFM, PSI, fluid flow, molecules, gases, compressibility, pressure relief valve, four way control valve, pressure regulating valve, reciprocating pump, voltage, power, current, resistance, OHMS, electromagnetic connection/induction, alternating current flow, direct current flow, active/passive solar system, open/closed loop system, direct/indirect gain approach, isolated/active gain approach, one Langley, solar radiation, solar constant, insolation value, neutrons, Three Mile Island accident, nuclear power, auto sensing technology, nuclear fusion, nuclear fission, atomic energy, breeder reaction, U-235, U-238, PU-238, PU-239,

Student Tasks:

- Understand concepts of the technological model
- Understand concepts and process associated with technological systems
- Reasons for technological changes and advancement
- Positive and negative effects from technology use
- Steps in developing a prototype, terminology associated with prototypes
- Steps in problem solving process
- Understand concept of performing simulations and why
- Interpret problems associated with traffic patterns and intersections
- Understand necessary steps before beginning a project
- Know and discern between the safety color codes
- Understand the different types of extinguishers and the specific fires to use them on
- Understand and Identify toxins that could cause harm
- Understand the process and parts associated with steam technology
- Understand the process and components of hydraulics
- Know the concepts of compressibility and volume and their relation to each other
- Know and understand formulas and relationships associated with power, voltage, current and resistance
- Know and identify components and concepts associated with solar energy
- Understand basic atomic theory, nuclear fission and nuclear fusion

