CHE211 Introduction to Chemical Engineering (3 units)

Department of Chemical Engineering

Covenant University
1. CHE211

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Chemical engineering functions, bench scale to industrial scale; Units and dimensions; temperature; pressure; the chemical equation and stoichiometry; (limiting reactants, excess reactants, degree of completion); material balances. The gas laws (Charles, Boyle, Gay-Lussac, Dalton and Amagat, real gas relationships); vapour-liquid equilibrium (Raoult’s law, relative and percentage saturation, condensation, dew point); steam (enthalpy-temperature chart, steam tables, throttling, calorimetry). Combustion calculations (solid-liquid and gaseous fuels, excess air); industrial safety (hazardous chemicals, safety precautions)