

SC151 – “EXPLOSIVES” LEARNING OBJECTIVES

To satisfy the minimum requirements for this course, you should master the following learning objectives.

Describe the characteristics of explosions and explosives, and describe the main causes of the destructive power of chemical explosives.

Distinguish between low and high explosives, explain the uses of each, and provide examples of each.

Recognize why nitrogen is generally found in the chemical structure of most explosives.

Use the ideal-gas equation as a first approximation to determine the pressures and volumes of gases in explosions. Explain the assumptions and limitations of using the ideal-gas equation in these calculations.

Approximate the energy change for an explosion by calculating the enthalpy change for the explosion reaction. Explain why this calculation is an approximation and not an exact measure of the energy change.

Calculate the temperature change of gases formed in an explosion.