Thesis Title	Energy analysis of a three-stage distillation unit
Programme of Studies	BSc in Mechanical Engineering, Stream Oil and Gas, Frederick University
Course	ASOG 405 Senior Project
Area of Study	Processes Modelling and Simulation
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Semester	Spring Semester 2017
Short Description	The scope of this study is the examination of the performance of distillation columns used in the oil and gas industry. The purpose of this project is to analyze the information about methods, techniques and data for the effective design of basic process at the basic design level. The most important physical processes such as heat exchange, evaporation, drying, equilibrium and distillation, fractional distillation of binary mixture, gas absorption, liquid extraction, basic membrane separation and adsorption are presented. The study focuses on distillation system used to separating binary or multi-component mixtures. Many variables such as column pressure, temperature, sue and diameter, are determined by the properties of the feed and the desired products. Some specialized columns perform other function, such as reactive distillation columns, which combine reaction and separation of products into a single unit.