

Lecture Notes and Materials

The PROCESSING page contains Lecture Notes and Materials from the NTNU course TPG 4135 on Petroleum Processing. The course is an obligatory course for petroleum engineering students at NTNU; a traditional course of long-standing. Students from other engineering disciplines such as mechanical and chemical engineering are also allowed to attend. The number of students has ranged from 30-40 each year.

The curriculum presented has been compiled in Lecture Notes, called *Kompendium* in Norwegian. The Lecture Notes contain the professors list of items to be presented orally and explained on a black-board. The Notes contain also figures, tables and importantly, several derivations of key equations. The lectures of Professor Gudmundsson were attended primarily by Norwegian speaking students. Occasionally, non-Norwegian speaking students attended, for example from Continental Europe, Russia and China. They were able to follow the lectures by additionally studying the *Kompendium* through a language converter on the Internet. Quite cool.

Several of the chapters in the *Kompendium* have been written as Chapters: Chapter 2 on Pressure Drop, Chapter 3 on Field Development, Chapter 5 on Pumps and Chapter 7 on Compressors. The chapters are given on a separate webpage. Also given are derivations of the equations corresponding to the material of each chapter.

Several presentations are given on a separate webpage. A couple of presentation were made in Course TPG 4135 using slides. The basis of the slides stem from other related courses: for example, TPG 4140 Natural Gas (see own webpages) and TPG 4105 Introduction of Petroleum Engineering, a course offered to non-petroleum engineering students. Two presentations stem from this course: Separation and Compression.

An important element of the courses given by Professor Gudmundsson, is the inclusion of derivations of the main equations. An understanding of the strengths and weaknesses of the theoretical framework, contributes to a professional approach to problem-solving and perhaps avoidance of GIGO (= Garbage In, Garbage Out) when using simulation tools. Some of the derivations are in Norwegian and some are in English.