

FACULTY OF **ENGINEERING**

DEGREE COURSE: **INDUSTRIAL ENGINEERING BS**

SUBJECT: REFRIGERATION

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OBJECTIVES

The course is aimed at providing the fundamentals of refrigeration technologies, in particular the thermodynamics principles and the main cooling applications.

CONTENTS

The teaching deals with the following topics:

- Vapour compression refrigeration cycle
- Refrigerants and their properties
- Refrigeration cycle and its main components
- Cold store and food preservation
- Absorption refrigeration
- Basics of cryogenics

LEARNING OUTCOMES

At the end of the course, students will:

- know thermodynamics principles applied to cooling technologies;
- know the main features of cold storage and freezing processes for food preservation;
- know basic principles of cryogenics.

ASSESSMENT

Written exam: multiple choice and open questions

RECOMMENDED TEXTBOOKS

W.F. Stoecker & J.W. Lones, *Refrigeration & air conditioning*, McGraw-Hill
