Syllabus

Basic data of the subject	
University/ Faculty:	**University of Applied Sciences in Ferizaj/ Faculty of Engineering and Informatics**
Title of the subject:	**Thermodynamics**
Level:	**Bachelor**
Course Status:	**Elective**
Year of studies:	**III**
Number of hours per week:	**4**
Value of Credits - ECTS:	**5**
Time / location:	
Course lecturer:	**Dr.Sc. Abdyl Koleci Prof.SHL**
Contact details:	**abdyl_koleci@hotmail.com**
Course description	*General knowledge of technical thermodynamics. The body of the work. Thermodynamic parameters of the situation and the situation changes. Polytrophic processes and polytopes special cases. The first law of thermodynamics. Enthalpy and internal energy. The second law of thermodynamics. Entropy, irreversibility and reversibility. Thermodynamic analysis of processes and cycles. Real gases and water vapour. The engine cycles. Transmission of heat by conduction. Transmission of heat by convection. Transmission of heat by radiation-thermal radiation. The transmission of heat in general form*
Objectives of the course:	*The purpose of this course is to study the various forms of energy, the relationship between matter and energy possession rule of law and fundamental thermodynamics and their application in different processes. Knowledge of thermodynamics forms the basis for a large number of disciplines applied to thermogenic.*
Expected learning outcomes:	*After completing this course the student will be able to:* • *Understand the basic concepts in technical thermodynamics* • *Submit design engineering problems associated with technical thermodynamics* • *Be able to solve problems related*

	engineering technical thermodynamics

Contribution to the student load (which must correspond with learning outcomes)			
Activity	**Hour**	**Day/Week**	**Total**
Lectures	2	15	30
Theoretical exercises / laboratory			
Internship	2	15	30
Contacts with teacher / consultations	2	3.5	7
Field exercises	1	4	4
Midterm, seminars and projects.	2	2	4
Homework	2	2	4
Self-learning time (at the library or at home)	2	15	30
Final preparation for the exam	1	14	14
Time spent on evaluation (tests, quiz and final exam)			
Projects and presentations	2	1	2
Total			**125**

Teaching methodology:	*Lectures, discussions, seminars, lab exercises, etc.*
Assessment methods:	• *First assessment: 25%* • *Second assessment: 30%* • *Homework: 10%* • *Attendance: 5%* • *Final exam: 30%* ***Total 100%***
Literature	
Basic literature:	1. *Demneri,I. etj(2003): Termodinamika. UPT, Tiranë* 2. *Krasniqi,F,Muriqi,A.(1995): Përmbledhje detyrash nga termodinamika, FIM, Prishtinë,*
Additional literature:	1. *Cengel,Y.,Boles,M.(2002):Thermodynamisc an enginnering approach,McGrow HIll,NY*

	2. *Moran,M,Shapiro,H.(2000),Fundamentals of Engineering Thermodyamics I&II,(ushtrime), John Wiley&Sons,NY*

Designed learning plan	
Week:	**Lectures and exercises to be held**
Week one:	*General knowledge of thermodynamics*
Week two:	*The body of the work; Thermodynamic state parameters and state changes*
Week three:	*Polytrophic processes and poytropes special cases.*
Week four:	*First law of thermodynamics*
Week five:	*Enthalpy and internal energy*
Week six:	*Second law of thermodynamics*
Week seven:	***First assessment***
Week eight:	*Enthropy, reversible and irreversible processes*
Week nine:	*Thermodynamic analysis of processes and cycles*
Week ten:	*Real gasses and steam; The engine cycles.*
Week eleven:	*Transmission of heat by conduction*
Week twelve:	*Transmission of heat by convection*
Week thirteen:	*Transmission of heat by radiation-thermal radiation.*
Week fourteen:	*The transmission of heat in general form*
Week fifteen:	***Second assessment***

Academic policies and rules of conduct
Regular attendance, turning off mobile phones, coming to class on time, etc.