

SYLLABUS

Basic data of the subject	
University/Faculty:	Faculty of Engineering and Information Technology
Title of the subject:	Heating and ventilation
Level:	Bachelor
Course Status:	Elective
Year of studies:	III
Number of hours per week:	4
Value of Credits - ECTS:	5
Time/ location:	
Course lecturer:	Mr. sc. Ismet Malsiu
Contact details:	ismet.malsiu@ushaf.net
Course description	
Course description	<p>This course will introduce students to the basics of heating and ventilation, including: the required amount of heat needed for heating; Calculation of heat loss; Instructions for the calculation of the required amount of heat needed for heating; Thermal insulation; Heating devices; Furnaces; Usage of flammable substances; Chimney; Calculation of chimney; Steam heating; Air source heat pumps; Ventilation. The necessary change of air; Ventilation; Ventilation installation process; Ventilation systems; Air cooling and ventilation equipment; Other necessary equipment, etc.</p> <p>Each unit that this course includes will be illustrated through discussions and examples from the corresponding field. Students will also be able to practice the things they learn about by visiting institutions, factories and industrial enterprises where such systems are installed. Also, students will have a chance to visit places where the above mentioned equipment is sold.</p>
Course objectives:	The main aim of this course is to provide students with basic knowledge on heating and ventilation, such as the calculation and application of the systems in private and public buildings.
Expected learning outcomes:	<p><i>Upon completion of this course, students will be able to:</i></p> <ul style="list-style-type: none"> • Know about the techniques and methods of gathering data about the execution of central heating systems and systems of ventilation and ventilation • Calculate the viability of the usage of these systems and other basic calculations which are

	<p>necessary for these systems</p> <ul style="list-style-type: none"> • Present and analyze projects that are related to these systems • Understand and apply the theory of building, namely assembling and making said systems function • Choose the equipment needed for these systems <p>This course will also help students improve the skills below:</p> <ul style="list-style-type: none"> • Communication and presentation skills, • Teamwork skills, • Skills of interpreting numbers, tables and graphs, • Skills of successfully conducting an assignment or project, • Communication skills with clients.
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Contribution to the student load (which must correspond with learning outcomes)

Activity	Hours	Days/weeks	Total
Lectures	2	15	30
Theoretical exercises / laboratory	2	15	30
Internship	1	1	15
Contacts with teacher / consultations	1	1	1
Field exercises			
Midterm, seminars and projects.			
Homework			
Studying (at the library or at home)	4	15	60
Final preparation for the exam	4	3	12
Time spent on evaluation (tests, quiz and final exam)	2		2
Projects and presentations	2	2	4
Total			154

Teaching methodology:	Lectures and exercises, combined with case studies and class discussions, assignments, projects, engineering experience which includes visiting institutions, factories or industrial economic enterprises where the systems are installed. Also, students will visit places where such equipment is sold.
Assessment methods:	<i>Final exam is worth 100% of the grade. This exam</i>

	<i>includes the test, project/assignment evaluation as well as the performance during the engineering experience.</i>
Literature	
Basic literature:	<i>Prof. dr. sc. FEJZULLAH KRASNIQI; Mr. Sc. REXHEP SELMANAJ; Inxh.i dipl. ISMET MALSIU</i> INSTALIMET MAKINERIKE
Additional literature:	<ol style="list-style-type: none"> 1. Krasniqi, F.: „NGROHJA DHE KLIMATIZIMI – I (Ngrohja)”, Universiteti i Prishtinës, Prishtinë 1997 2. Krasniqi, F.: „NGROHJA DHE KLIMATIZIMI – II (Ventilimi dhe klimatizimi)”, Universiteti i Prishtinës, Prishtinë 2000. 3. Krasniqi, F.; Sahiti, S.: „NGROHJA DHE KLIMATIZIMI (Përmbledhje detyrash- I)”, Universiteti i Prishtinës, Prishtinë 1998. 4. Voshtina , L: NGROHJA, VENTILIMI DHE KLIMATIZIMI I NDËRTESAVE, BT,Tiranë 2002 5. Recknagel, Šprenger, Henman: GREJANJE I KLIMATIZACIJA, përkthim nga gjermanishtja, GK, Beograd, 1972. 6. Installations - und Heizungstechnik Fachkunde Grundlagen & Lernfelder 1-15 Bilder interaktiv, 2008 7. Alfons Gassner, 2003 Der Sanitarinstallateur Technologie * Fachstufe Alfons Gassner, Bammburg 2003
Designed learning plan:	
Week	Lecture
Week one:	HEATING. Basic understanding and information. From basic literature, Chapter I From additional literature, nr. 6
Week two:	The required amount of heat for heating From basic literature , Chapter 1 From additional literature nr. 3 From additional literature nr. 6 , 7

Week three:	<p>Instructions on the calculation of the amount of heat needed for heating; Thermal insulation Project-assignment is appointed</p> <p>From basic literature, Chapter I From additional literature nr. 3 From additional literature nr. 6, 7 – Project-assignment</p>
Week four:	<p>Heating devices</p> <p>From basic literature, Chapter I From additional literature nr. 3 From additional literature nr. 6,7</p>
Week five:	<p>Furnaces</p> <p>From basic literature, Chapter I From additional literature nr. 3 From additional literature nr. 6, 7</p>
Week six:	<p>Usage of flammable substances; Chimney</p> <p>From basic literature, Chapter I From additional literature nr. 3 From additional literature nr. 6,7</p>
Week seven:	<p>Central heating.</p> <p>From basic literature, Chapter I From additional literature nr. 3 From additional literature nr. 6,7</p>
Week eight:	<p>Steam heating; Air heating</p> <p>From basic literature, Chapter I From additional literature nr. 3 From additional literature nr. 6,7</p>
Week nine:	<p>VENTILATION. The necessary change of air;</p> <p>From basic literature, Chapter II From additional literature nr. 5 From additional literature nr. 6,7</p>
Week ten:	<p>Classification of ventilation</p> <p>From basic literature, Chapter II From additional literature nr. 5 From additional literature nr. 6,7</p>

Week eleven:	Air conditioning From basic literature, Chapter III From additional literature nr. 5 From additional literature nr. 6,7
Week twelve:	Air conditioning installation From basic literature, Chapter III From additional literature nr. 5 From additional literature nr. 6,7
Week thirteen:	Air cooling and ventilation equipment; Other necessary equipment From basic literature, Chapter III From additional literature nr. 5 From additional literature nr. 6,7
Week fourteen:	Discussion and submission of the project-assignment
Week fifteen:	Review

Academic policies and rules of conduct:

Attendance, appropriate behavior in class, participation in class activities, as well as submission of the project-assignment and maximal dedication to the engineering experience are all mandatory.