UNESCO-UNITWIN
OCW/OER INITIATIVE
HANDONG GLOBAL UNIVERSITY

[A-3]COURSE SYLLABUS

1. Course Description (Approximately 100 words)

In the structure of the science, the following are considered: fuel-energy saving problems, use of renewable energy sources, thermodynamic process, ideal gases law, first law of thermodynamics, ideal gases equation, gas thermal capacity, thermodynamic processes of ideal gases, isotropic processes, isothermal process, adiabatic processes, polytrophic processes, second law of thermodynamics, the essence of law, basic definitions, circulation processes (cycles) Cycle cooling apparatus, cycle compressor cooling circuits, heat pumps, heat transfer methods, thermal conductivity, convection, radiation, heat transfer, convection, convection, heat through a single layer and multilayer plate heat transfer coefficient, heat transfer coefficient, heat transfer coefficient, heat transfer coefficient, heat transfer equation, fluid transport directions: one-way, contrast and cross-over, heat transfer equation, main directions of energy savings, problems of environmental protection from combustion products

2. Course Goals and Objectives (Approximately 100 words)

It is well-known that the satisfaction of fuel and energy resources is not only achieved through increasing the production of fuel and energy, but also the introduction of economically perfect energy-technological processes in all sectors of the economy, can be achieved with the full utilization of secondary energy resources.
Heat engineering is one of the fundamental subjects that teaches the methods of obtaining, absorbing and utilization of heat energy, as well as transferring from one physical body to another. Heat engineering laws are used in all production lines and in different technological processes.
The purpose of the subject "heat engineering" is to study the conversion of heat energy from one type to another, and to convert heat energy into mechanical energy.

3. Textbook (Title, Author, Publisher, Year of Publication, etc.)

1. [illegible] 2004
2. [illegible] 2005

4. Reference

1. Zoxidov R.A., Avjzov R.R., Vardiyashvili A.B., Alimova M.M. «Issiqlik tjxnikasining nazariy asoslari» o‘q. qo‘l., 1 qism, TDTU, 2005
2. Alimova M.M., Mavjudova SX.S., Isaxodjajv X.S., Raximjonov R.T., Umarjonova F.SX. «Issiqlik tjxnikasining nazariy asoslari» fanidan tajriba ishlari to‘plami uslubiy qo‘llanmasi. 1-qism. ToshDTU. 2004

5. Course Requirements and Grades

Course prerequisites:
Students should have the knowledge of "Higher mathematics", "Resistance of materials", " Theoretical mechanics", and "Drawing geometry".
Grading System:
Homework 15%
Design Project 15%
Mid-term Exams 35%
Final Comprehensive Examination 35%
Total 100%
5=86-100%
4=71-85%

6. Course Calendar

Week	Main Content
1	Introduction to Mechanics, Basic Concepts and Principles
2	Mechanical Properties of Materials, Tensile Test
3	Tensile Test, Stress-Strain Curve, Hooke's Law
4	Shear Test, Torsion Test, Torsion Formula
5	Torsion Formula, Torsion Test
6	Torsion Test, Torsion Test
7	Torsion Test, Torsion Test
8	Torsion Test, Torsion Test
9	Torsion Test, Torsion Test
10	Torsion Test, Torsion Test, Torsion Test
11	Torsion Test, Torsion Test, Torsion Test
12	Torsion Test, Torsion Test, Torsion Test
13	Torsion Test, Torsion Test, Torsion Test
14	Torsion Test, Torsion Test