**Course:** technical English

Units: 2

**Teacher:** Alireza Hossein Nezhad

**Course outline** 

- Week 1. Fluid and Heat functions in engineering applications
- Week 2. Fluid Mechanics, fluid power
- Week 3. Engineering thermodynamics, thermodynamic equilibrium
- Week 4. Heat transfer, fundamental of engineering heat transfer
- Week 5: Materials science, strength of materials
- Week 6. Thermal effects on solids, liquids, and gases
- Week 7. Mechanical drawings, application of electromechanical energy
- Week 8. Midterm exam
- Week 9. Engineering design, design of fluid thermal systems
- Week 10. Internal combustion engines, Carnot cycle
- Week 11. Air conditioning, heating and cooling systems
- Week 12. Heat exchangers
- Week 13. Hydraulic machinery
- Week 14. Power stations
- Week 15. Fluid measurements
- Week 16. Pressure and velocity measurements
- Week 17. Final exam

It is noted that part of each session is dedicated to teaching the structure of English sentences to provide the students with information necessary for writing and reading.

## **Course evaluation**

Attending in the class and contributing in the class activities: 15%

Translation project: 10% Midterm exam: 15%

Final exam: 60%

## Reference

1-Jalalipoor, J., English for the students of mechanical engineering, fluid thermal approach, SAMT, Tehran, 2004/1383.