[A-3]COURSE SYLLABUS

1. Course Description (Approximately 100 words)

This course is designed to give students a general overview about Automobile testing which is the most important stage of Automobile Designing. The course examines crush characteristics, structural collapse and their influence on safety, test planning and methods for various performance regimes, data acquisition and analysis, uncertainty analysis, sensor selection, noise filtering, data reduction methods, track testing.
Students improve their knowledge by choosing among the various disciplines of specific areas during the course, including Design constraints for crash, test planning, test safety. They also generally participate in research/learning communities centered on above-mentioned fields. We offer a rich combination of seminars and field studies are an enjoyable part of our provision. The course will give the student an overall view of the automobile testing and the integral part that they play in life.

2. Course Goals and Objectives (Approximately 100 words)

The goal of educating this subject is to prepare students for the field of Automobile-building and tractor-building which include directions such as ICE (Internal Combustion Engine), automobile, tractor and other means of mobile transport and energetics, principles of testing them, testing classifications, programming, methodology, and to enrich their knowledge by teaching them means of technics and equipment developing their potential through practices. The objective of the subject is to help students master programs that are designed to test automobile and tractors, to assess and evaluate and separate the automobile classification according to their testing results, means of equipment used in testing, testing devices, to help students develop skills to use testing machines and at the same time to educate them acquire the ability to build programs which can test entire machines or aggregate and other mechanisms

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

Engine Testing,Theory and Practice,A.J.Martyr, M.A.Plint, Elsevier, UK, 2007 year, 459 pages
Integrated vehicle dynamics and control, John Wiley, Markono print Media, Singapore, 2016 year, 205 pages

4. Reference

www.sabre.org
http:elsevier.com.
www.wiley.com.

5. Course Requirements and Grades

Requirements on the subject of the bachelor should:
have an idea:
- about mechanical properties of the materials;
- about modern resource energy and material processing technologies;
- The types and properties of the structural materials used in machine-bulding, types of phase transformations, the theoretical foundations of the given properties;

know and be able to use:
-physical fundamentals of materials science;
-methods receipt and processing of construction materials;
-Shipping diagnosis and improve the structural properties of materials;

6. Course Calendar

Week	Main Content
1	Introduction
2	Classification of tests
3	rder and steps of tests. The types of evaluation of machines according to the
4	Evaluating machines according to availability for exploitation
5	ter and increase the volumes which are being measured and other types of s
6	Working out the test results
7	Evaluating constructive results of machines
8	Testing tractor for pulling
9	Testing automobile
10	Testing automobile for dynamics of brake
11	Testing automobile for stability
12	Intensive testing of automobile and tractors
13	
14	