

**Short-term Intensive Course on
Mechanical Construction, Inspection and Diagnostics,
Faculty of Engineering, University of Debrecen, Hungary**

The city of Debrecen has more than 200,000 inhabitants, making it the second largest city in Hungary. It lies in the north-eastern part of the Great Plain region about 240 km from Budapest. Debrecen is the cultural and scientific centre of eastern Hungary, a city of festivals, which has always been able to renew itself during its turbulent history of more than 650 years. The city is also attractive to tourists. It receives hundreds of thousands of visitors every year during its festivals, which include the Béla Bartók International Choir Contest, Debrecen's Jazz Days, the Hungarian language and cultural courses of the Debrecen Summer School, or the Flower Carnival held each year on 20th August.

The University is historically rooted in the Reformed College of Debrecen (founded in 1538) whose three academic sections later served as the basis for the establishment of the Hungarian Royal University of Sciences, created in 1912. With this heritage of more than 450 years, UD is one of the oldest institutions of higher education in Hungary. Today the university is comprised of 14 faculties and has close to 32,000 students, out of which 6,500 are internationals. UD was awarded the titles "Research University" (in 2010) and "University of National Excellence" (in 2012) by the Hungarian Government.

UD ranked among Top Universities

Four Hungarian universities are included in the most recent QS World University Rankings with the UD featured between 601st and 650th position on the list of top universities in the world. In consideration of quality of foreign students training UD is at 304th position in the world's ranking list.

The **Faculty of Engineering** has been awarded several prizes for high quality education „The North Great Plain Quality” and the „Recognized for Excellence by the Hungarian Association for Excellence” prizes in 2008 and „Higher Education Quality Prize in 2011. It is a dynamically developing Faculty with over 2,700 students, out of which 1,000 are internationals, and a highly-qualified and enthusiastic teaching staff of about 100 members.

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The aim of the course is to transfer modern and practice-oriented skills of operation and maintenance of machinery. Participants learn automotive constructions and its operation as a mechanical construction. Based on its experience the next course deals with the general concepts of constructing parts, devices and machines. In possession of these concepts the calculation with MATLAB and the application of the FEM and 3D presentation are introduced. An implemented part, device, machine must be tested hence the measuring systems and methods, material testing and diagnostics systems of operating machines are introduced. The project ends with practical training of the basic welding processes.

Sample Schedule for Mechanical Construction, Inspection and Diagnostics

Week 1-4

	Monday	Tuesday	Wednesday	Thursday	Friday
1	Subject specific English	Subject specific English	Subject specific English	Subject specific English	Subject specific English
2	Subject specific English	Subject specific English	Subject specific English	Subject specific English	Subject specific English
3	Automotive constructions	Calculation with MATLAB	Engineering experimentation	Material testing	Laboratory Practice
4					
5	Machine design	FEM and 3D application	Machine diagnostics	Welding processes	Laboratory Practice
6					
7					
8					

Please note that this is only a sample schedule. Subjects can be changed and further subjects can be added according to the needs of the applicants.

The cost of the intensive course is **1500 EUR/person**.

Accommodation can be booked at the University's dormitories from **200 EUR/month/person** price. The cost of full board is **500 EUR/ month**.

For further information please contact:

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