

Tárgytematika / Course Description Measurement and automatization

MENB_BÉTA030

Tárgyfelelős neve /

Teacher's name: dr. Milics Gábor

Félév / Semester: 2024/25/2

Beszámolási forma /

Assesment: Vizsga

Tárgy heti óraszám /

Teaching hours(week): 2/2/0

Tárgy féléves óraszám /

Teaching hours(sem.): 0/0/0

OKTATÁS CÉLJA / AIM OF THE COURSE

The aim of this course is for students to become familiar with the measurement technology and automation elements and systems essential for the operation of food industry machinery and equipment, particularly in consultations with automation specialists.

TANTÁRGY TARTALMA / DESCRIPTION

DESCRIPTION

Fundamentals of Electrical Engineering: Basics of electrical measurement tools and methods

DC Network Elements I: Introduction to direct current network components.

DC Network Elements II: Advanced concepts of direct current network components.

1. Test.

Measurement Transducers: Understanding transducers used in measurement.

Displacement and Acceleration Measurement: Techniques for measuring displacement and acceleration.

Vibration and Rotation Measurement: Methods for measuring vibrations and rotational motion.

Force, Torque, and Pressure Measurement: Techniques for measuring flow, force, torque, and pressure.

2. Test

Measurement of radiation and light

Temperature measurement

Logic operations and circuits

Deployment of programming languages to use

3. Test

SZÁMONKÉRÉSI ÉS ÉRTÉKELÉSI RENDSZERE / ASSESSMENT'S METHOD

The grading scale based on the percentage of points achievable in the exam is as follows:

0 - 39%: Fail (1)

40 - 59%: Satisfactory (2)

60 - 74%: Average (3)

75 - 84%: Good (4)

85% and above: Excellent (5)

KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL

Dennis L. Eggleston - Basic Electronics for Scientists and Engineers

Thomas A. Hughes - Measurement and Control Basics

AJÁNLOTT IRODALOM / RECOMMENDED MATERIAL