



**T-316-LABB**

**MEASUREMENT SYSTEMS (íslenska: MÆLIKERFI)**

**6 ECTS**

**Year of study:** 2<sup>nd</sup> year.  
**Semester:** Fall. *Kennt í fyrsta sinn á haustönn 2020.*  
**Level of course:** 2. Undergraduate (First cycle), intermediate.  
**Type of course:** Core HÁV, HEV, OV, RAV, VV.  
**Prerequisites (mandatory):** Analog Circuit Analysis (T-306-RAS1). Other recommended prerequisites: Differential equations (T-301-MATH), Statistics (T-302-TOLF).  
**Schedule:** Taught every day for three weeks.  
**Supervising teacher:** Ágúst Valfells.  
**Lecturer:** Yonatan Afework Tehfahunegn, Vijay Chauhan.

**Learning outcome:**

Knowledge: After completing this course the students will have knowledge on:

- Principles of operation of commonly-encountered transducers
- Uncertainty analysis
- Sampling and spectral analysis
- Data acquisition systems

Skills: After completion of this course the students will have skills on:

- Confidently encounter a sensor or experimental system for the first time
- Planning and executing experiments
- Designing experiments
- Report writing

**Content:** This course introduces the essential general characteristics of measuring devices, data acquisition systems, uncertainty analysis, on how to use uncertainty analysis as a tool to design experiments, and sampling and spectral analysis. Planning and executing experiments, and report writing are also covered.

**Reading material:** To be decided.

**Teaching and learning activities:** Mini-labs, workshops, and experiments.

**Assessment methods:** To be decided.

**Language of instruction:** English/Icelandic

**Birt með fyrirvara um breytingar.**

Uppfærðar upplýsingar um námsmat og kennsluáferðir eru birtar í kennslukerfinu Canvas í upphafi hvorrar annar.