Name of subject:	NEPTUN-code:	Number of hours:	Credit: 4
Material knowledge of	RMWPA1EBNE	lec+gs+lab	Requirements:
paper packaging		1+0+3	practice mark
Course coordinator:	Title:	Prerequisite:	
László Koltai PhD	associate professor	Packaging and paper technology I.	

## Subject content:

Paper types classification, and their main characteristics. Measurement theory, the reproducibility of measurements methods, evaluation of test results.

Introduction of general properties of the paper: production direction, transverse direction, sieve, the upper side, square weight, volume weight.

Understanding mechanical properties of paper, snatch, expansion, fracture, laceration, methods of measuring surface hardness. Knowledge of gluing properties, writeability, COBB, PLG, etc.

Introduce of advanced paper characteristics, flow, smoothness, etc.

Theory of measurement of optical properties, color measurement, whiteness measurement, opacity measurements.

## **Competences to be mastered:**

- a) knowledge
- Knowledge of the most important basic materials applied in the special area of product design, their production and their application criteria.
- b) capabilities
- Understand and use characteristic online and printed references characteristic of their special field, both in Hungarian and in at least one foreign language.
- Know and apply the terminology and special expressions of their professional field in Hungarian and in at least one foreign language.
- Adequate perseverance and endurance of monotony to perform practical operations.
- Able to give reasons for the decisions related to the product designed, as well as to test them and support them by technical and standard investigation methods.
- c) attitude
- Efforts to comply with legal regulations and to take the ethical rules of engineering into account during work.
- Taking care of ensuring equal access opportunities in problem solving.

## Bibliography:

- 1. Dr. Koltai L. :Csomagoló- és papíripari anyagismeret I. OE Jegyzetszám: 6056
- 2. Tiefbrunner A.: Csomagolás Trendek és kérdések, COMPLEX KIADÓ KFT, 2010
- 3. Papíripari szaklexikon, Papír-Press kiadó, Budapest, 2002
- 4. https://elearning.uni-obuda.hu/ electronic notes and aids prepared by the instructor