		( ) Philosophy (Special Lectures)							
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	Introduction to the theory of measurement

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Any scientific investigation must begin with measuring its objects. Measurement assigns numbers to things, but what does it mean and how is it possible? We can surely quantify length and weight, but also stress level or happiness in the same sense? If not, why?
The concept of measurement lies at the center of various philosophical issues such as objectivity, representation, and meaningfulness. This seminar reads standard texts on the theory of measurement to explore its philosophical implications.

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In this class, students will learn the basic concepts and issues concerning measurement as well as applications of formal ideas (i.e. symmetry and invariance) to philosophical questions.

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We plan to read (excerpts from) the following books/papers. For each week a presenter gives a summary of the assigned text and leads the discussion. Evaluation is based on presentation and participation in discussion. Every participant is required to actively engage in discussion --- just attending to class does not warrant a credit.

* Narens, L. (2007). Introduction to the Theories of Measurement and Meaningfulness and the Use of Symmetry in Science. Mahwah: Lawrence Erlbaum Associates.
* Suppes, P. (2002). Representation and Invariance of Scientific Structures. Stanford, CA: CSLI Publication.
* Krantz, D. H., Suppes, P., Luce, R. D., & Tversky, A. (1971). Foundations of Measurement (Additive and Polynomial Representations), vol. 1. Academic Press.

All reading materials will be posted on PandA.

<Plan>
Week 1: Introduction
Week 2-15: Selective reading from the above texts

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Presentation and participation to in-class discussion

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All reading material will be posted on PandA.

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Students are required to read assigned texts closely before class and to note down their comments and/or questions.

For the basic idea of the theory of measurement, refer to
https://junotkja.wordpress.com/2014/11/20/patrick-suppes-1922-2014   /

Note that it is NOT directly related to measurement theory in mathematics (e.g. theory of Lebesgue measure and so on)

KULASIS