

SEMINAR

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Title of the Seminar: **Covergent Sequence, Theories & Examples**

Covergent Sequence, Theories & Examples

ABDULLAH TOPCU

Assoc. Prof., Dean of NCO

Proposed Freshman Seminar, Spring

Term

This seminar will examine convergent sequence in real numbers. Firstly, definition will be given. After that, convergent sequence will be described with examples and will be clarified the relation with the concept "limit". By the way, famous discussion on the definition will be designated geometrically. The theory "adding finite number of terms to a convergent sequence" will be proven. Besides, the uniqueness of the limit will be also proven. After these, 6 problems will be solved. At the end, a historical note on the convergence and limit will be presented.

Rationale:

Because students can be assumed to have some background knowledge of numbers and sequence, and because all will surely have the logic of mathematical proof, the subject lends itself readily to a freshman seminar.

Primary readings:

Knopp K., eds., Infinite Sequences and Series. (1956).

Requirements:

Students will be expected to have basic definition of numbers, sequence and logic of the mathematical proofs.