Semigroup of Endomorphisms of a vector space

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The semigroup of endomorphisms of a finite dimensional vector space is an extensively studied object in semigroup theory. Often it is identified with the semigroup $M_n(K)$ of $n \times n$ matrices over a field K. As a ring $M_n(K)$ is a basic ring used in structure theory of rings. Hence the semigroup of $n \times n$ matrices can be much used in the study of multiplicative semigroups of rings. In this talk we discuss some properties of this semigroup related to the biorder structure of idempotents, unit regularity and generalised inverses.

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