



## COURSE DESCRIPTION

ACADEMIC CENTER <b>ROBERTO ALCÂNTARA GOMES</b> <b>BIOLOGY INSTITUTE</b>		DEPARTMENT <b>DEPARTMENT OF ANATOMY</b>	
COURSE NAME <b>EXTRACELLULAR MATRIX</b>		( ) CORE COURSE  (X) OPTIONAL COURSE	HOURS 30  CREDITS 2
PROGRAM / PROJECT NAME <b>PHYSIOPATHOLOGY AND SURGICAL SCIENCES</b> <u>Key Focus Area:</u> Urogenital System Operative technique and Experimental Surgery Cardiovascular System	DISTRIBUTION OF HOURS		
	TYPE OF CLASS	HOURS	N. OF CREDITS
	THEORETICAL	30	2
	PRACTICAL		
	TOTAL	30	2
PREREQUISITES		(X) Master's program course (X) Doctorate's program course	

### COURSE DESCRIPTION

Extracellular matrix: definition and concepts. Collagen system: molecular types and characteristics. Collagen fibrinogenesis. Collagen disorders. Elastic system. Types of fibers and constitution. Elastogenesis. Molecular structure and types. Extracellular matrix components interactions. Cell integrins and receptors for extracellular matrix components.

### BASIC BIBLIOGRAPHY

1. Ayad S, Handford RB, Humphries M. The Extracellular Matrix Factsbook (Factsbook). Academic Press, 1998.
2. Chadwick DJ, Goode JÁ eds. The molecular biology and pathology of elastic tissues. Ciba Foundation Symposium 192. Wiley Rochester, 1995.
3. Cremer MA, Rosloniec EF, Kang AH. The cartilage collagens: a review of their structure, organization, and role in the pathogenesis of experimental arthritis in animals and in human rheumatic disease. J Mol Med, 76:275-288, 1988
4. Kreis T, Vale R: Guidebook to the Extracellular matrix proteins. Oxford, Oxford University Press, 1993.
5. Mousa AS: Cell Adhesion Molecules and Matrix Proteins: Role in Health and Diseases (Biotechnology Intelligence Unit), R G Landes Co., 1998.
6. Yurchenko PD, Birk DE, Mecham RP: Extracellular Matrix Assembly and Structure. San Diego, Academic Press, 1994.

### PROGRAM / PROJECT COORDINATOR

DATE

SIGNATURE