



## COURSE DESCRIPTION

ACADEMIC CENTER ROBERTO ALCANTARA GOMES BIOLOGY INSTITUTE		DEPARTMENT DEPARTMENT OF ANATOMY		
COURSE NAME FOUNDATIONS OF EXPERIMENTAL NUTRITION		( ) CORE COURSE  ( X ) OPTIONAL COURSE	HOURS 45	CREDITS 3
PROGRAM / PROJECT NAME PHYSIOPATHOLOGY AND SURGICAL SCIENCES <u>Key Focus</u> <u>Area:</u> Cardiovascular System	DISTRIBUTION OF HOURS			
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	TYPE OF CLASS	HOURS	N. OF CREDITS	
	THEORETICAL	15	1	
	PRACTICAL	30	2	
TOTAL		45	3	
PREREQUISITES		(x) Master's program course (x) Doctorate's program course		

### COURSE DESCRIPTION

To study research methods in the field of experimental nutrition, addressing different modes and techniques of biological and biochemical evaluation of animals. Discussion of scientific articles recently published that present new aspects related to the study of nutrition, especially in relation to: obesity, metabolic programming, diabetes mellitus, systemic arterial hypertension, menopause, chronic degenerative diseases. Use of experimental diets in animals: diet with protein restriction, diet with protein-energy restriction, diet with high energy content, supplements with different dietary oils, specific micronutrient restrictions. Nutritional needs of rodents at different stages of life.

### BASIC BIBLIOGRAPHY

1. WISTAR RAT H. HISTORICAL DATA: HEMATOLOGICAL VALUES CLINICAL CHEMISTRY VALUES UV, ORGAN WEIGHTS: <http://www.m-b.dk>: Me B A/S 1995.
2. LANGLEY-EVANS SC. Fetal nutrition and adult disease. Programming of chronic disease through fetal exposure to undernutrition. CABI Pu, Cambridge 2004.
3. AGUILA MB, MANDARIM-DE-LACERDA CA: Blood pressure, ventricular volume and number of cardiomyocyte nuclei in rats fed for 12 months on diets differing in fat composition. Mech Ageing Dev 2001; 122:77-88.
4. AGUILA MB, MANDARIM-DE-LACERDA CA: Effect of different high-fat diets on the myocardium stereology and blood pressure in rats. Pathol Res Pract 2000; 196: 841-846.
5. AGUILA MB, SA SILVA SP, PINHEIRO AR, MANDARIM-DE-LACERDA CA: Effects of long-term intake of edible oils on hypertension and myocardial and aortic remodeling in spontaneously hypertensive rats. J Hypertens 2004; 22: 921-929.
6. AGUILA MB, MANDARIM-DE-LACERDA CA: Heart and blood pressure adaptations in Wistar rats fed with different high-fat diets for 18 months. Nutrition 2003; 19: 347-352.
7. AGUILA MB, PINHEIRO AR, MANDARIM-DE-LACERDA CA: Spontaneously hypertensive rats left ventricular cardiomyocyte loss attenuation through different edible oils long-term intake. Int J Cardiol 2005; 100:461-466.
8. REEVES PG, NIELSEN FH, FAHEY GC, JR.: AIN-93 purified diets for laboratory rodents: final report of the American Institute of Nutrition ad hoc writing committee on the reformulation of the AIN-76A rodent diet. J Nutr 1993; 123: 1939-1951.

### PROGRAM / PROJECT COORDINATOR

DATE	SIGNATURE
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