



**UNIVERSIDADE FEDERAL DE SANTA CATARINA**  
**CENTRO DE DESPORTOS**  
**PÓS-GRADUAÇÃO EM EDUCAÇÃO FÍSICA**  
Campus Universitário - Trindade - Florianópolis/SC - CEP 88040-900  
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**Subject:** Advanced studies in Human Performance

**Concentration Area:** Biodynamic of Human Performance

**Code:** DEF 51-0002

Nº of credits: 2 credits

Class hours: 30 hours

**Class period:** 05 March to 09 of April

### **COURSE PROGRAM**

Professors:

Prof. Dr. Gary Brickley (University of Brighton - UK)

Prof. Dr. Ricardo Dantas de Lucas (UFSC)

### **COURSE DESCRIPTION**

Training and testing applied to Olympic and Paralympic Cycling. Prescription of high-intensity interval training. Data analysis and graph construction applied to sports science.

### **COURSE OUTCOMES**

- Discuss about the physiological determinants of performance in Olympic and Paralympic Cycling.
- Present and discuss the modern methods of high-intensity interval training.
- Improve the ability to perform data analysis and graph construction.

### **METHODS OF TEACHING**

The subject will be developed using expositive-dialogued classes, analysis of research reports, and critical analysis of scientific paper.

### **METHODS OF EVALUATION**

Participation and presence during the classes and activities (40%). Elaboration of final work (60%).

## REFERENCES

Brickley, G., Williams, C. and Doust, J. (2002) *Physiological responses during exercise to exhaustion at critical power*. **European Journal of Applied Physiology**, 88 (1-2). pp. 146-151.

Clark B., Costa V.P., O'Brien B.J., Guglielmo L.G., Paton C.D. (2014) *Effects of a seven day overload-period of high-intensity training on performance and physiology of competitive cyclists*. **PLoS ONE** 9(12): e115308.

de Lucas RD, Dittrich N, Junior RB, de Souza KM, Guglielmo LGA. (2012). *Is the critical running speed related to the intermittent maximal lactate steady state?* **Journal of Sports Science and Medicine**. 11 89-94.

Penteado, R., Salvador, A. F., Corvino, R. B., Cruz, R., Lisboa, F. D., Caputo, F., de Lucas, R. D. (2014). *Physiological responses at critical running speed during continuous and intermittent exhaustion tests*. **Science & Sports**, 29(6), e99-e105.

## SCHEDULE

DATE	PERIOD	LOCAL	PROFESSOR
05/03/2015	9h às 12h	Bloco 5 (PPGEF)	Prof. Dr. Gary Brickley
05/03/2015	14h às 17h	Bloco 5 (PPGEF)	Prof. Dr. Gary Brickley
06/03/2015	9 às 12h	LAEF	Prof. Dr. Gary Brickley
12/03/2015	14h às 18h	Bloco 5 (PPGEF)	Prof. Dr. Ricardo D. de Lucas
19/03/2015	14h às 18h	Bloco 5 (PPGEF)	Prof. Dr. Ricardo D. de Lucas
26/03/2015	14h às 18h	Bloco 5 (PPGEF)	Prof. Dr. Vitor P. Costa

**O restante da carga horaria será cumprida por meio do trabalho final da disciplina (Entrega até o dia 09 de Abril de 2015).**