

Course	Exercise Physiology			Teacher	Hiroyuki Imamura		
Type of course	Lecture	Credits	2credits	Semester · Period	1st · 2nd year / Spring	Compulsory · Elective	Elective
Aim of Course							
Exercise physiology is an evaluation of the acute responses and longer-term adaptations of the body to the stress of physical exercise. The aim of this course is to understand and discuss application of research methods in the field of exercise physiology to athletic performance, sports nutrition, and health and diseases.							
	Attainment target of Course				Evaluation tool · method		Ratio of Evaluation
Interest · Motivation · Attitude	To be able to demonstrate achievements of study by giving a presentation				presentation		25%
Consideration · Judgement	To be able to present a review of literature.				presentation		25%
Skill · Expression							
Knowledge · Understanding	To be able to write short review paper.				Final written review paper		50%
Attendance							Required to take exam
Total Score							100%
Evaluation criteria and supplementary explanation of evaluation means or methods							
· Evaluation: presentation of a review of literature (50%) and final written review paper (50%).							
Overview of course							
This course requires a review of literature, proposal of a research question, collection and analysis of data. The final written short review paper will be required.							
Textbook · Reference book							
教科書 : related original papers. 参考書 : Brooks GA, Fahey TD, and White TP: Exercise Physiology: Human Bioenergetics and Its Applications Mayfield Publishing Co.							
Out of class learning and expectations for students							
This course is conducted in English, students are expected to have some knowledge of exercise physiology, sports nutrition, and health sciences.							

#	Topic	Details	Preparation • Review
1	Introduction	Introduction of this course	Review the syllabus Read Statistics (1)
2	Statistics (1)	Statistical analysis in athletic performance	Review the Statistics (1) Read Statistics (2)
3	Statistics (2)	Statistical analysis in sports nutrition	Review the Statistics (2) Read Statistics (3)
4	Statistics (3)	Statistical analysis in health science	Review the Statistics (3) Read Athletics (1)
5	Athletics (1)	Principles of skeletal muscle adaptations	Review the Athletics (1) Read Athletics (2)
6	Athletics (2)	Energetics and athletics	Review the Athletics (2) Read Athletics (3)
7	Athletics (3)	Motor units recruitment	Review the Athletics (3) Read Sports Nutrition (1)
8	Sports Nutrition (1)	Nutrition and athletic performance	Review the Sports Nutrition (1) Read Sports Nutrition (2)
9	Sports Nutrition (2)	Muscle glycogen and carbohydrate loading	Review the Sports Nutrition (2) Read Sports Nutrition (3)
10	Sports Nutrition (3)	Blood lipids and lipoproteins in sports players	Review the Sports Nutrition (3) Read Exercise and Health
11	Exercise and Health	Exercise and Health Development	Review the Exercise and Health Read Exercise and Lipids
12	Exercise and Lipids	Exercise and hyperlipidemia	Review the Exercise and lipids Read Exercise and Obesity
13	Exercise and Obesity	Exercise and obesity and body composition	Review the Exercise and Obesity Read Exercise and Diabetes
14	Exercise and Diabetes	Exercise and diabetes	Review the Exercise and Diabetes Read Exercise and asthma
15	Exercise and asthma	Exercise and exercise-induced asthma	Review the Exercise and asthma
16	Conclusion	General discussion	Submit the short review paper