科目ナンバリング	U-LAS40 10016 LE26						
授業科目名<英訳>	Physiology in Health and Sports-E2 Physiology in Health and Sports-E2			担当者所属職名・氏名	医学研究科　講師　RAUDZUS, Fabian		
群	健康・スポーツ科目群	分野(分類)	健康・スポーツ科学(基礎)	使用言語	英語		
旧群		単位数	2単位	週コマ数	1コマ	授業形態	講義（対面授業科目）
開講年度・開講期	2026・後期	曜時限	火4	配当学年	全回生	対象学生	全学向

[授業の概要・目的]

Understand the secrets of the human body in the lecture 'Physiology in Health and Sports'. Dive into the exciting world of physiology, where you will not only gain a solid understanding of how our body works, but also discover the vital connections between physiology, health, lifestyle, and sports.

Why Choose This Course?

1. Relevance Across Disciplines: This course offers a multidisciplinary exploration of physiology that applies to various academic fields and interests. Due to the focus on health and sports, physiology is embedded in a context everyone can relate to.

2. Practical Insights for Well-being: Learn how understanding physiology can directly impact your health and well-being.

3. Enhancing Athletic Performance: This lecture helps you to uncover the physiological principles that drive sports performance. From endurance to strength, understand how your body can excel in athletic endeavors.

4. Real-world Applications: Explore case studies, practical examples, and contemporary research demonstrating how physiological knowledge is applied in healthcare, fitness, and sports.

5. Interactive Learning Environment: Engage in stimulating discussions, hands-on activities, and collaborative projects that foster a dynamic and enriching learning experience.

In summary, this course is targeted at all students who want to learn more about human physiology and it's relevance for health and sports.

[到達目標]

By the end of this lecture series, you will possess the essential knowledge to understand the details of your body's organization and operations. Through in-depth exploration of key physiological mechanisms, you'll gain deep insights into their structures, characteristics, functions, and their interplay with other bodily systems and organs. This newfound expertise will empower you to effectively analyze and address complex issues, including the effects of diseases, in the context of health and sports.

[授業計画と内容]

Tentative Schedule:

1. Understanding the Body's Functional Organization
2. Exploring Cellular Physiology
3+4. Powering Motion: Unveiling the Muscular System
5. Blood's Vital Role

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6+7. Peak Performance: Cardiovascular Physiology
8. Breathing Easy: Respiratory
9. Nervous System Dynamics in Health and Athletic Endeavors
10. Sensory Physiology and Its Impact on Health and Sports
11. Digestive Health: Physiology of the Gastrointestinal System for Active Lifestyles
12+13. Hormonal Harmony: Exploring the Endocrine System's Role in Health and Sports
14. Synergy of Systems: Integrating Physiology with Overall Health
15. Feedback

The content and order might be adjusted.

[履修要件]

While there are no requirements for this course, a basic understanding of biology is very helpful. This background knowledge will enhance your comprehension and engagement with the material presented. Students from all academic backgrounds are welcome and encouraged to participate in this exploration of physiology in health and sports.

[成績評価の方法・観点]

Attendance and Active Participation: 20%
Midterm Assignment: 40%
Final Assignment: 40%

[教科書]

授業中に指示する

[参考書等]

（参考書）
John E. Hall, Michael E. Hall 『Guyton and Hall Textbook of Medical Physiology (Guyton Physiology)』（Elsevier, 2020）ISBN:9780323597128（https://shop.elsevier.com/books/guyton-and-hall-textbook-of-medical-physiology/hall/978-0-323-59712-8）
Christopher Madden, Margot Putukian, Eric McCarty, Craig Young 『Netter's Sports Medicine, 3rd Edition』（Elsevier, 2022）ISBN:9780323796699（https://evolve.elsevier.com/cs/product/9780323796699?role=student）
Further material will be given in class if needed.

[授業外学修（予習・復習）等]

To ensure you make the most out of every lecture in the "Physiology in Health and Sports" series, it is strongly recommended to dedicate some time to preparation and review before each session. This will help you engage with the material more effectively and deepen your understanding of the fascinating topics we'll be covering. Your proactive approach to learning is the key to success in this course.

[その他（オフィスアワー等）]

If you have further questions, feel free to write me an email.

[主要授業科目（学部・学科名）]