



Department of Physiology, Faculty of Science, Mahidol University

SCPS361: Physiology of aging 2(2-0-4)

Semester 2/2021

Tel: 02-201-5611, 02-201-5614

Course: SCPS361: Physiology of aging

Credit: 2 (2-0-4)

Academic year: 2021

Course Organizer:

Teaching Staff:

1. Department of Physiology, Faculty of Science, Mahidol University
2. Invited lecturers

Course description

หลักการและทฤษฎีทางชีววิทยาที่เป็นพื้นฐานของการชราภาพในมนุษย์ กระบวนการการชราภาพทั่วไป การชราภาพกับสภาวะสุขภาพ อาหารสำหรับผู้สูงอายุ นวัตกรรมและการประยุกต์ใช้ปัญญาประดิษฐ์สำหรับผู้สูงอายุ

Biological Principles and theories that underlie the phenomena of human aging; Normal aging processes; Aged-related health conditions; Elderly nutrition guideline; research, innovation, and artificial intelligence for aging.

Course Objectives:

Examination of human aging with major emphasis in the physiology of the later years and implications for health maintenance. The goal of the course will be to establish biological concepts and theories that underlie the phenomena of human aging. Throughout the course special effort will be made to prevent and treatment normal aging based on physiology.

Teaching Methods: Lecture / Paper discussion / Student presentation Assignment:

Teaching Materials

1. Copies of power point presentation

Student Assessment

Grading for this class is based on:

- i. Class participation and discussion (20%)
- ii. Assignment (report/presentation) (80%)

References:

1. Physiological Basis of Aging and Geriatrics 4th Edition, by Paola S. Timiras CRC Press
2. Articles provided by lecturers

Schedule

Date	Time	Subject	Lecturer
Jan 4, 22	8:50-9:00	Course orientation	KB
	9:00-12:00	Introduction to aging and longevity	
Jan 11, 22	9:00-12:00	Visual and hearing degeneration	CS
Jan 18, 22	9:00-12:00	Aging and metabolic diseases	VS
Jan 25, 22	9:00-12:00	How to prevent and treatment of bone loss in the elderly	RA
Feb 1, 22	9:00-12:00	Elderly research direction: Now and future	KB
Feb 8, 22	9:00-12:00	Age-related problems and business opportunity I	SS
Feb 15, 22	9:00-11:00	Special lecture I: Aging and the cosmetics industry	TI
Feb 22, 22	9:00-11:00	Special lecture II: Artificial intelligence for aging health	NS
Mar 1, 22	9:00-11:00	Dietary supplements for the elderly (VDO)	TB
Mar 8, 22	9:00-11:00	Special lecture III: Successful aging	WK
Mar 15, 22	9:00-12:00	Age-related problems and business opportunity II (student presentation)	Staff
Apr 26, 22	13:00-15:00	Pitching the ideas of aging innovation	Staff

Lecturers

Lecturer	Affiliation
Vitton Saengsirisuwan, Ph.D. (VS)	Dept of Physiology, Faculty of Science, Mahidol University
Sunhapas Soodvilai, Ph.D. (SS)	Dept of Physiology, Faculty of Science, Mahidol University
Tepmanas Bupha-Intr, Ph.D. (TB)	Dept of Physiology, Faculty of Science, Mahidol University
Chonlawan Saengjaroentham (CS)	Dept of Physiology, Faculty of Science, Mahidol University
Ratchaneevan Aeimlapa, Ph.D. (RA)	Dept of Physiology, Faculty of Science, Mahidol University
Wanlop Kunanusornchai, Ph.D. (WK)	Faculty of Physical Therapy, Mahidol University
Tawin Iempridee, Ph.D. (TI)	NANOTECH, NSTDA
Narut Soontranon, Ph.D. (NS)	Central Digital, Central Group
Kanit Bhukhai, Ph.D. (KB)	Dept of Physiology, Faculty of Science, Mahidol University