Course Title: Understanding Alzheimer's Disease and Dementia  
Course Code: BIO 98  
Instructor: Victor Henderson, MD, with faculty from the Stanford Alzheimer's Disease Research Center  
Location and Time: Presented online via Zoom, Tues. 7:00 to 8:50 PM, first class April 14

Course Summary:
Please see course page for full description and additional details. Please note that a medical or science background is neither required nor expected. Course readings and handouts will be posted in Canvas.

Grade Options and Requirements:

• No Grade Requested (NGR)
  o This is the default option. Attendance and classroom participation are expected. No outside work will be required; no credit shall be received; no proof of attendance can be provided.

• Credit/No Credit (CR/NC)
  o You must sign-in (using the “chat” option in Zoom) for 6 of 8 class sessions and prepare a short review (about 1200-2000 words) on any topic related to cognitive aging, Alzheimer’s disease or some aspect of dementia that interests you. If you wish, you can send me a topic proposal for my brief comments (optional), and we may be able to talk briefly about a topic proposal via Zoom at the end of any class session. The final short paper (Word document preferred) is due on the last day of class (June 2nd) and can be submitted on Canvas.

• Letter Grade (A, B, C, D, No Pass)
  o Same requirements as for Credit/No Credit (see above).

Please Note: If you require proof that you completed a Continuing Studies course for any reason (for example, employer reimbursement), you must choose either the Letter Grade or Credit/No Credit option. Courses taken for NGR will not appear on official transcripts or grade reports.

Weekly Outline

• W 1, April 14  ° Course overview; dementia  
  ° Alzheimer’s disease  
  Dr. V. Henderson

• W 2, April 21  ° Cognitive aging and mild cognitive impairment (MCI)  
  ° Parkinson’s disease dementia (PDD) and dementia with Lewy bodies (DLB)  
  Dr. K. Poston

• W 3, April 28  ° Frontotemporal dementia (FTD)  
  ° Vascular dementia  
  Dr. S. Sha

• W 4, May 5  ° Neuropsychology of aging and dementia  
  ° Brain imaging in dementia  
  Dr. M. Yutsis

• W 5, May 12  ° Chronic traumatic encephalopathy  
  ° Is this dementia? The neurologist’s approach to diagnosis  
  Dr. D. Born

• W 6, May 19  ° Neuropathology of dementia [includes a demonstration of diseased brain specimens]  
  ° Caregiving in dementia  
  Dr. H. Vogel

• W 7, May 26  ° Alzheimer’s disease treatment: Approved therapies  
  ° Alzheimer’s disease treatment: New drug development  
  Dr. V. Henderson

• W 8, June 2  ° Genetics of Alzheimer’s disease  
  Dr. M. Greicius
Readings: There are no required readings. Recommended readings will be posted in Canvas. Course faculty are asked to provide a copy of their lecture materials (slide content), which we will also post in Canvas each week.

Course director

Victor Henderson, MD, MS. Professor of Epidemiology & Population Health and of Neurology & Neurological Sciences. Director, Stanford Alzheimer’s Disease Research Center.

Course faculty

Donald Born, MD, PhD. Professor of Pathology.
Jennie Clark, MA. Program Manager, Memory Support Program, Aging Adult Services, Stanford Health Care.
Michael Greicius, MD, MPH. Associate Professor of Neurology & Neurological Sciences.
Frank Longo, MD, PhD. Professor of Neurology & Neurological Sciences.
Elizabeth Mormino, PhD. Assistant Professor (Research) of Neurology & Neurological Sciences.
Kathleen Poston, MD, MS. Associate Professor of Neurology & Neurological Sciences.
Sharon Sha, MD, MS. Clinical Associate Professor of Neurology & Neurological Sciences.
Hannes Vogel, MD. Professor of Pathology and Pediatrics.
Maya Yutsis, PhD. Clinical Assistant Professor (Affiliated) of Neurology & Neurological Sciences.

Course description

Boomers, Gen Xers, and millennials often cite Alzheimer’s disease as an overriding concern for the years ahead. It is described as a tsunami, affecting over 5 million Americans. Many things change as we transition into middle age and then into older adulthood, including our memory and other mental skills. Large declines in memory and cognition are referred to as dementia, and the leading cause of dementia is Alzheimer’s disease. Although it is largely an illness of old age, early biochemical changes precede clinical symptoms by well over a decade.

Featuring distinguished faculty from the Stanford Alzheimer’s Disease Research Center, this course provides an in-depth overview of cognitive changes over the normal lifespan and review evolving concepts of dementia. We will look at what Alzheimer’s disease is and is not, what parts of the brain are affected, and why the disorder sometimes runs in families. We will consider differences among cognitive aging, mild cognitive impairment, and Alzheimer’s disease; and we will compare and contrast Alzheimer’s disease with other disorders that sometimes lead to dementia. We will also address modern approaches to diagnosis and treatment, new therapies, and challenges faced by Alzheimer’s caregivers. Finally, our faculty will talk about potential preventive strategies—both where the evidence is weak and where the evidence seems to offer hope.

Victor W. Henderson, Professor of Epidemiology & Population Health and of Neurology & Neurological Sciences, Stanford

Victor Henderson’s research focuses on risk factors for cognitive aging and dementia, and on interventions to help prevent and treat these disorders. He is an epidemiologist and a board-certified neurologist with subspecialty specialization in behavioral neurology. He directs the NIH Stanford Alzheimer’s Disease Research Center and co-directs the master’s degree program in epidemiology and clinical research at Stanford. He received an MD from Johns Hopkins and trained at Duke, Washington University, Boston University, and the University of Washington. He is an adjunct professor (Honorary Skou Professor) at Aarhus University in Denmark.

Please contact the Stanford Continuing Studies office with any questions
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