

Neurocognitive Aging: How Cognitive Abilities Change over the Lifespan

Lecturer: Dr. John Anderson

Join the Director of Carleton's new Cognition and Neuroscience of Aging Lab, Dr. John Anderson, to explore the cognitive neuroscience of aging. In this lecture series, you will learn about the factors influencing cognitive aging, such as genetics, lifestyle, education, and health conditions. You will also explore the effects of cognitive aging on memory, attention, language, decision-making, and social cognition. We will highlight the daily challenges and opportunities that older adults face and how they can maintain or enhance their cognitive functioning. The series will be interactive and engaging, with examples from research and practice. You will have the chance to participate in discussions and activities that will help you apply your knowledge to real-world situations. *No prior background in psychology or neuroscience is required.*

Schedule of topics:

1. An overview of cognitive aging and models of cognitive aging

How do cognitive psychologists and neuroscientists describe changes associated with aging? What do they believe are the root causes underlying stability and decline? Join us this week to find out.

2. The aging brain: what changes, what resists?

This week, dive into neuroanatomy, find out which parts of the brain are more (or less) resistant to the effects of aging, and how scientists use modern neuroimaging techniques to peer inside the brain.

3. Attention and memory: what was I talking about?

This week, we'll learn about how attention and memory go arm in arm and the different types of attention and memory. Not all types of memory are equally impacted by aging; some forms improve across the lifespan.

4. Social and emotional aspects of aging

This week we'll talk about the importance of social relationships for cognitive health, changes in emotional well-being with age, and how aging affects goals and motivation. We'll also discuss stereotype threat and what that might mean for assessing memory.

5. Abnormal aging: when should you start to worry?

This week, we'll discuss risk factors for abnormal aging and dementia including heart disease, hearing loss, and poor sleep. Then we'll turn to what abnormal aging is, covering the spectrum from mild cognitive impairment to various dementias and some of the symptoms of common forms. We'll discuss when a person should seek further help and what that might look like.

6. Aging well: what can be done to help stave off cognitive decline?

This week we'll cover modifiable lifestyle factors, such as being bilingual, regularly exercising, or playing a musical instrument, that can contribute to cognitive reserve. We'll also talk about modifiable contextual factors that can affect cognitive performance, such as reducing noise and distraction or being tested at an optimal time of day.