Age-Related Diseases and Disorders

Syllabus

ABOUT THIS COURSE

This course is an introduction to providing care and support for older adults, senior citizens, or the elderly. Together we can help deliver personalized caregiving towards ageing well and with dignity.

If you are, plan to be, or might become a caregiver and want to learn more about engaging in supporting the care needs of older adults, than this course is for you!

This course is one of several courses developed to support you with the knowledge and skills needed in your role as a carer to an older adult. This is a 4-part self-paced interactive course focused on age-related diseases and disorders and is designed to be complemented with the other courses we offer.

This course introduces you age-related diseases and disorders that are common in older people. These include conditions in many parts of the body, like the nervous system, cardiovascular system, musculoskeletal system, urinary system, etc.

This course takes you through interviews with clinical specialists, and lead patients to help you gain a deeper understanding of the common conditions that occur with age.

- **Section 1** will cover various aspects of dementias and mental health disorders.
- **Section 2** we will learn about cardiovascular diseases, stroke, respiratory diseases and diabetes.
- **Section 3** we will discover what happens when someone is diagnosed with Parkinson's disease, as well as frailty and musculoskeletal disorders.
- **Section 4** will go through urological diseases and disorders, as well as cancer, infections and the immune system.

Our course is set up in 4 sections, each section having several subsections to complete. In each section, you will be presented new material, in the form of video lectures, text and assessment exercises.

This course is designed for self-paced study. We estimate that it will take you approximately **2-4 hours per section to complete each section**.

The course materials are completely available as soon as the course begins and you can work on this course at any time prior to the end date of the course, which is displayed on the course **Home** page**.**

COURSE TOPICS SECTION BY SECTION:

Section 1 – Dementias and Mental Health Disorders

Section 2 – Respiratory and Cardiovascular Disease; Diabetes

Section 3 – Parkinson's Disease, Frailty and Musculoskeletal Disorders

Section 4 – Urological Diseases and Disorders; Cancer

PREREQUISITES
There are no prerequisites for this course, however you may find it helpful to take the course, "Introduction to Caregiving for Older Adults." There may be some language that you are not familiar with, we have tried to highlight these words in the Glossary.

EXPECTED TIME COMMITMENT
We expect that each section of the course will take you between 2-4 hours to complete, and that the total course could take about 7-14 hours depending on your pace as you move through the course and contribute to discussion forums.

NEEDED RESOURCES
A reflection journal or notebook, where you can write and collect your thoughts after each video. This is not assessed for quality but will enhance your learning experience and retention. We will refer to this a your "reflection journal" throughout the course.

You do not need any additional materials besides the recommended journal for this course to complete it, but you may find it beneficial to be able to do additional internet searches, or review some of the linked resources to external sites in the course.

DEADLINES
If you are auditing the course, you will have 5-weeks to complete it from the date of your registration.
If you have registered as a verified-certificate learner the course will be live, open and available to you anytime until October 2019.
Otherwise we understand carers have a variety of situations and wanted the course to adapt as best as possible to your schedule.

INSTRUCTOR PARTICIPATION
While we will not have constant staff monitoring and supporting the course, several of our instructors will be joining periodically throughout the length of the course (Jan-Oct 2019) to see your work in the discussions and to share additional feedback and highlight some of the important work our students, like you, are doing!

COURSE UPDATES
Since the course is self-paced the entirety of the course will be available once you register. However, as we monitor there may be course updates that take place during the period of January to October 2019 when we make updates. These will be informed in the update area of the course.

GUIDELINES ON DISCUSSION FORUM ETIQUETTE
Read the specific Guidelines on Discussion forum Etiquette!

Please remember however that caregiving experiences can vary greatly! Practice avoiding the use of generalizations, as they may not be true in all circumstances. Instead, try to speak of concrete contexts and experiences without compromising anyone's identity or security.

DISCUSSION FORUM PARTICIPATION FREQUENCY

All discussion forums in the course are specifically built as reflective exercises to support your learning. Therefore, they are included as a graded learning activity by answering the multiple-choice question following them on if you participated. There are several discussion forum reflections in each section.

It does take time to compose your thoughts, contribute and engage in discussions with peers, but we highly encourage you to take part in the course's discussion forums for enhancing your course experience. You are able to check in the course under Discussion to receive an email digest once a day notifying you about new, unread activity from posts you are following. Please try to do this as it will be helpful to your learning AND that of your peers.

If for any reason you are uncomfortable posting openly in the discussion forum, please alternatively keep a hand written or digital journal of your own reflections.

OVERALL LEARNING OUTCOMES

Our aim for participants taking this course is to gain knowledge and instill confidence in how to care for an older adult. This means that by the end of the course you should **be able to:**

- Identify the basic principles of age-related diseases and disorders.

- List the different symptoms and symptom combinations from age-related diseases and disorders in older adults.

- Describe the possible changes that age-related diseases and disorders have on older persons and their relatives.

- Propose strategies for how to manage the impact that age-related diseases and disorders have on older persons and their relatives.

- Demonstrate general knowledge of polypharmacy and the comorbidities associated with age-related diseases and disorders by applying best practices in the care of older people with age-related diseases and disorders.

The learning outcomes are applicable across the scope of the various diseases and disorders covered in this course. These include neurological, cardiovascular, respiratory, musculoskeletal, and urological conditions as well as diabetes, cancer and immune system.

COURSE OUTLINE

Age-related Diseases and Disorders (CARE103) covers the following content, organized by section:

Introduction

- Getting Started with the Course
- Course Welcome
- Learning Objectives
- Meet the Instructors

- About the edX Platform
- Entry Survey
- Self-Assessment Quiz

Section 1: Dementias and Mental Health Disorders

- Introduction to Dementias (AD & VD) and Mental Health Disorders including Depression and Anxiety
- Dementia Part 1: Signs and Symptoms
- Dementia Part 2: Person-Centered Care
- Mental Health Disorders Part 1: Signs and Symptoms
- Mental Health Disorders Part 2: Managing Medication
- Mental Health Disorders Part 3: Anti-Depressants
- Mental Health Disorders Part 4: Comorbidities
- Mental Health Disorders Part 5: Care and Support
- Review of Dementias (AD & VD) and Mental Health Disorders
- Assessment Section 1

Section 2: Respiratory Diseases, Cardiovascular Diseases and Diabetes

- Introduction to Respiratory Diseases
- Respiratory Diseases Part 1: Common Conditions
- Respiratory Diseases Part 2: Prevention and Treatments
- Respiratory Diseases Part 3: What Can the Carer Do?
- Extra focus on Respiratory Infectious Diseases (Cold & Flu)
- Review of Respiratory Diseases
- Introduction to Cardiovascular Diseases
- Cardiovascular Diseases Part 1: Aging and Cardiovascular Diseases
- Cardiovascular Diseases Part 2: Angina; Atrial fibrillation; COPD
- Cardiovascular Diseases Part 3: Heart Failure (HF); Stroke; Thrombosis; Myocardial Infarction (MI)
- Cardiovascular Diseases Part 4: Hypertension; Hypercholesterolemia; Cholesterol; Polypharmacy
- Cardiovascular Diseases Part 5: Comorbidities
- Review of Cardiovascular Disease
- Introduction to Diabetes
- Diabetes Part 1: Type 1 & Type 2 Diabetes
- Diabetes Part 2: Lifestyle: Diet and Exercise
- Diabetes Part 3: Polypharmacy and Related Comorbidities
- Review of Diabetes
- Managing Medication: Diabetes and Cardiovascular Diseases
- Assessment Section 2

Section 3: Parkinson's Disease, Frailty and Musculoskeletal Disorders

- Introduction to Parkinson's Disease
- Parkinson's Disease Part 1: Signs and Symptoms
- Parkinson's Disease Part 2: Early Detection and Medication
- Parkinson's Disease Part 3: Care and Support
- Review of Parkinson's Disease

- Introduction to Frailty and Musculoskeletal Disorders
- Frailty and Musculoskeletal Disorders Part 1: Physical Functions and Activity; Frailty; Arthritis; Osteoporosis
- Frailty and Musculoskeletal Disorders Part 2: Maintaining and Improving Physical Health
- Frailty and Musculoskeletal Disorders Part 3: Reduced Mobility
- Frailty and Musculoskeletal Disorders Part 4: Prevention
- Frailty and Musculoskeletal Disorders Part 5: Fall Prevention
- Review of Frailty and Musculoskeletal Disorders
- Assessment Section 3

Section 4: Urological diseases and Disorders; Cancer
- Introduction to Urological Diseases and Disorders
- Urological Diseases and Disorders Part 1: Signs and Symptoms; Incontinence
- Urological Diseases and Disorders Part 2: UTI; Prostate
- Urological Diseases and Disorders Part 3: Prostate Cancer; Potential Comorbidities
- Urological Diseases and Disorders Part 4: Comorbidities and Polypharmacy
- Urological Diseases and Disorders Part 5: Care and Support
- Urological Diseases and Disorders Part 6: Diet and Exercise; Kidney Stones
- Review of Urological Diseases and Disorders
- Managing Medication
- Introduction to Cancer
- Cancer Part 1: Common Types of Cancer
- Cancer Part 2: Misconceptions, Treatment and After-Care
- Cancer Part 3: Caring for Someone with Cancer
- Cancer Part 4: Cognitive Issues
- Review of Cancer
- Assessment Section 4

Wrap up & Farewell
- Final Reflections on Conditions & Behavior Change
- Farewell
- Exit Survey

ABOUT EIT HEALTH & CARE
This course is developed through [CARE](#) - a unique partnership of academic institutions, companies and governmental agencies that monitor the necessary needs, support, and quality of care to provide their citizens.

This course focuses on carers across Europe, and with support from [EIT Health](#), which promotes healthy living, active ageing, and improvements to healthcare.

COURSE INTRUCTORS

Maria Hagströmer
Associate Professor, Division of Physiotherapy,
Department of Neurobiology, Care Sciences and Society
(NVS), Karolinska Institutet, Sweden

Maria Hagströmer, RPT, Associate professor and head of
the Division of Physiotherapy, Karolinska Institutet (KI),
Stockholm, Sweden. Dr Hagströmer is born in Sweden,
educated as a Biomedical laboratory assistant (1981)
Physiotherapist (1996) as well as took a master in Public Health (2001) and her PhD
(2007) at KI. Dr. Hagströmer did a post-doc at the National Institutes of Health (NIH)
in the US in year 2008. She has worked as a teacher at KI since 1999. Within the
area of teaching Dr. Hagströmer is actively involved in teaching at undergraduate,
master and doctoral programs. She has, among all, developed the curriculum at the
Physiotherapy program to involve strategies that enhance deep-learning, such as
peer-learning and the portfolio method for examinations. She was awarded the KI
pedagogical academy in year 2011. She has for example been the Swedish partner
in an Erasmus program for educating people in Europe on how to tackle obesity. This
program was multi professional and the courses were annually held in Austria from
year 2007 to 2012.

Dr. Hagströmer´s research is focused on physical activity and health throughout the
lifespan with a special interest in preventive efforts, persons with functional limitations
as well as improving physical activity assessment methods. Her vision is to reach
those most inactive to become somewhat active and by evaluating different types of
behavioural interventions as well as physiotherapy interventions for this population.
At the moment Dr. Hagströmer is a supervisor of several PhD students and one post-
doc. She has over 100 publications in peer-reviewed journals, over 5000 citations
and has received large external research grants. She is associate editor for the
International Journal of Behaviour Nutrition and Physical Activity (IJBNPA), a
member of the board of the International Society for Physical Activity and Health
(ISPAH) and the Swedish representative for GoPA. Currently, she is working in the
steering group for an update and translation of the Swedish hand book FYSS
(Physical activity as prevention and treatment of disease) into English to be
implemented through an EU-project.

Anneliese Lilienthal
Project Coordinator, Unit for Bioentrepreneurship, Dept. of
Learning, Informatics, Management and Ethics (LIME),
Karolinska Institutet, Sweden

Anneliese has been active as a project manager at KI in EIT
Health projects since 2016 and helps to coordinate the MOOC
course development for CARE Campus. Anneliese holds
Master's Degrees in Global Health and Medical Illustration, to
which she has a specific focus on communication, pedagogy, and innovation. She
was recognised in 2013 as a Global Swede Nominee by the Swedish Ministry of
Foreign Affairs and The Swedish Institute, which "is awarded to international students

who are considered 'good ambassadors for their university and for Sweden', and have shown academic creativity, entrepreneurship or innovation." She further was selected in 2013 to participate in the Modernt Åldrande program towards developing innovations for the elderly. She was awarded the grand prize after participating in a pitching competition among six companies focusing on innovations for the elderly.

Over the years, she has gained a broad foundation in health education media development, as well as training alongside medical students and working with a wide variety of medical researchers. In 2011, Anneliese became a certified medical illustrator (CMI), and in 2016 was honored as a Fellow of the Association of Medical Illustrators (FAMI). From 2008-2012, Anneliese was a producer of 3D medical animations at XVIVO Scientific Animation. In this role she helped develop animations, interactive programs, presentations and static images for pharmaceuticals, medical device companies, and the general public. This background allows her to serve as a translator of complex medical information into educational visuals, and as a facilitator between the fields of medicine, nursing, biology, microbiology, cellular biology, biotechnology, anatomy, public health, global health, health science innovation, medical marketing, and medical illustration. As part of LIME (the Department for Learning, Informatics, Management and Ethics) she lectures on scientific communication and presentation at both the masters and doctoral levels.

OTHER LECTURERS
- Francesca Mangialasche, MD, PhD: ARC (Aging Research Center); KI
- Anne Börjesson-Hanson, MD, PhD: Division of Clinical geriatrics; KI
- Jonas Spaak, MD, PhD: Danderyd University Hospital; KI
- Malin Nygren-Bonnier, PhD, Physiotherapist, Division of Physiotherapy, NVS, KI
- Sara Riggare: PhD student; Health Informatics Centre; KI
- Elisabeth Rydwik: Senior lecturer/physical therapist. Division of Physiotherapy; Department of Neurobiology, Care Sciences and Society; KI
- Lars Henningsohn, MD, PhD: Head of unit/professor. Department of Clinical Science, Intervention and Technology (CLINTEC); KI
- Ana Hagström, MS; Research Assistant. Institution of Public Health Sciences (EPIOMH), KI; and Nurse. Stockholms läns sjukvårdsområde.

DEVELOPMENT SUPPORT
- Kristal Morales Perez, MS
- Alexandra Manson, MS
- Anneliese Lilienthal, MS, CMI, FAMI

GLOSSARY
Experts sometimes speak in a language hard to understand. Please use the glossary if you need an explanation of a term. It covers most of the terms.

GRADING POLICY
To pass this course you will need to have at least a 60%. Your final grade will be a combination of learning activities and assessments. Graded Learning Activities will count for 20% of your final grade and 80% of your final grade is based upon the formal assessments.

Graded Learning Activities (20% of your grade). There will be quiz like exercises and reflective discussions to self-report on throughout the course. Areas with these are marked as **Graded Learning Activities** or GLA. For problems you work on here you will be given 3 attempts to answer correctly, and for many we provide an explanation to help you once you have answered correctly or maxed out your attempts.

Section Assessments (80% of your grade). At the end of each section we include a summative assessment of the material covered. For most of these you will have 1 attempt or maximum 2 attempts to answer the question correctly. Questions are worth 0,5 to 2,0 points each and some questions that are multi-part may be 0,1 to 0,25 per part. Explanations may be provided after completion, but if your answer is wrong you may need to return to review the content in the section.

The course shows indicators for graded assignments. You can check your progress on the **Progress** page, and when you have achieved a passing grade, you can click the **Request Certificate** button to request for a **Verified Certificate**.

CERTIFICATE OF COMPLETION
This course offers a **Verified Certificate**. If you achieve 60% or greater as your final course grade, you will earn a certificate of achievement after the course ends.

If you plan to use this course for job applications, promotions, or school applications, you may prefer to have a verified certificate. An edX verified certificate shows that you have successfully completed your edX course and verifies your identity through your photo and ID. EdX certificates are delivered online through edx.org.

This course is not currently designed for learners to receive academic credit.