

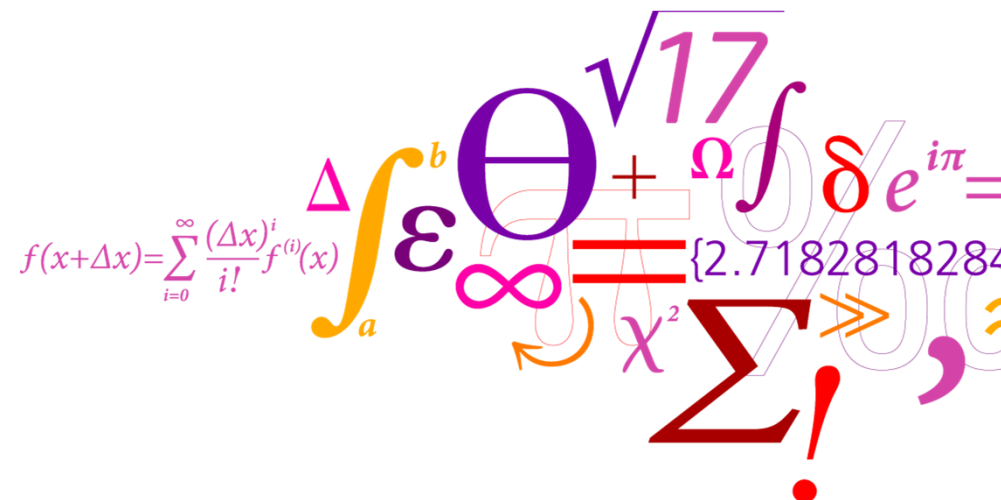


## Introduction to COURSERA-based Course : “ Antimicrobials, antimicrobial resistance and susceptibility testing (AST basics)”

Lina M. Cavaco

DTU Food  
National Food Institute

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## Background for the course

- EURL-AR have had the wish to implement e-learning as part of continuous knowledge transfer to NRL's
- Material preparation/ planning included in EURL Workplan starting in 2013
- In 2014 the plans and collected materials were made into COURSERA-adapted video lectures and learning materials and published on the DTU COURSERA (closed platform)
- Pilot testing at end 2014/ start 2015

## Format of the course

- COURSERA platform- DTU closed course with controlled enrollment
- Not fixed in time or limited. Materials will be available for long period
- No grading
- Video-lectures available to view any time
- Video-lectures contain pop-up in video quizzes (to test if participants are awake 😊)
- Quizzes with automatic evaluation for each of the themes

## Description of the Course

- Basic course on Antimicrobials, antimicrobial resistance and susceptibility testing (14 lectures)
  - **Theme A-** antimicrobials and antimicrobial action (L1-2 + Quizz)
  - **Theme B-** antimicrobial resistance and mechanisms (L3-6 + Quizz)
  - **Theme C-** antimicrobial susceptibility testing (L7-11 + Quizz)

## Description of the Course- cont

- **Theme D-** antimicrobial susceptibility testing – interpretation (L12+ Quizz)
- **Theme E-** Quality management and Quality assurance in antimicrobial susceptibility testing (L13-14 + Quizz)
- **Theme F-** alternatives to Phenotypic testing (Whole genome sequencing tools) (L15-16 + Quizz)

## More Information

- Participants will be people in the EURL-AR network and our research group exclusively
  - At this point circa 115 people from NRL network and the people belonging to our research group will be granted access
  - MOOC is planned for the future (videos will be re-done)
- Additional participants have to be added by course administrators: Lina or Susanne
- Suitable for newcomers in the network or continuous training of staff
- New modules- videos will be added when possible

Login page:

<https://dtu.coursera.org/astbasics-001/class>



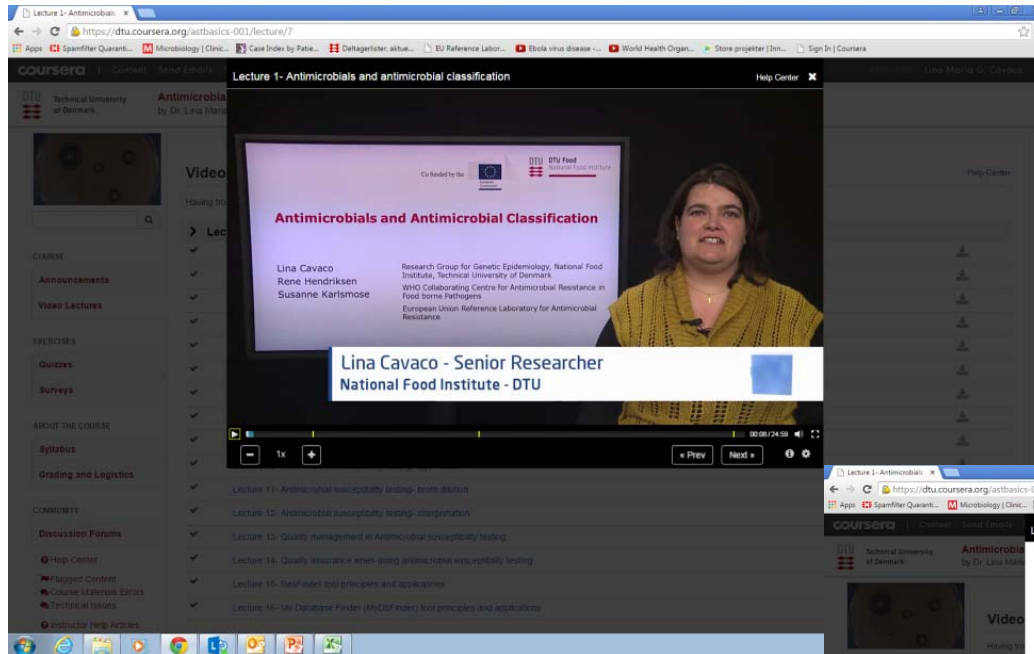
Entry page with announcements and course contents:

The screenshot shows the Coursera course page for 'Antimicrobial resistance and susceptibility testing, definitions and methods' by Dr. Lina Maria Cavaco. The page is viewed in a browser window. The top navigation bar includes 'coursera' and various utility links like 'Content', 'Send Emails', 'Setup', 'Grading', 'Advanced', and 'Analytics'. The instructor's name, 'Lina Maria G. Cavaco', is visible in the top right. The course title and instructor name are prominently displayed. On the left, there is a sidebar with navigation options: 'COURSE' (with sub-items 'Announcements' and 'Video Lectures'), 'EXERCISES' (with 'Quizzes' and 'Surveys'), 'ABOUT THE COURSE' (with 'Syllabus' and 'Grading and Logistics'), and 'COMMUNITY'. The main content area features an 'Announcements' section with a 'Welcome letter' addressed to participants. The letter explains that the course is a work in progress, with theoretical lectures as videos and practical aspects covered through quizzes. It also notes that materials will be uploaded over time without fixed schedules. On the right, there is a 'New Lectures' section listing nine lectures, from 'Antimicrobials and antimicrobial classification' to 'Antimicrobial susceptibility testing- methods'. The browser's taskbar at the bottom shows the date as 2015-10-09.

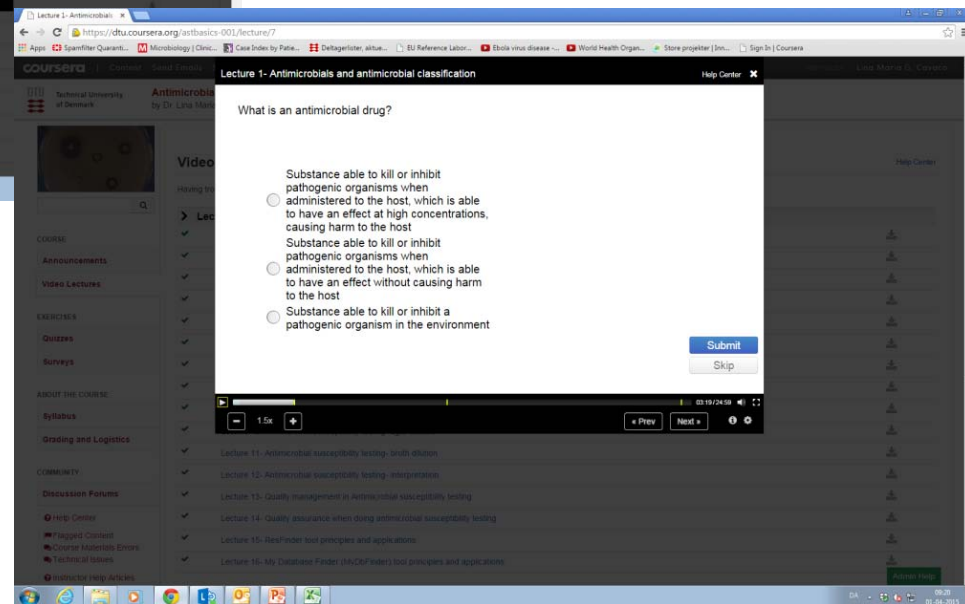
# Learning Materials



## Video lectures

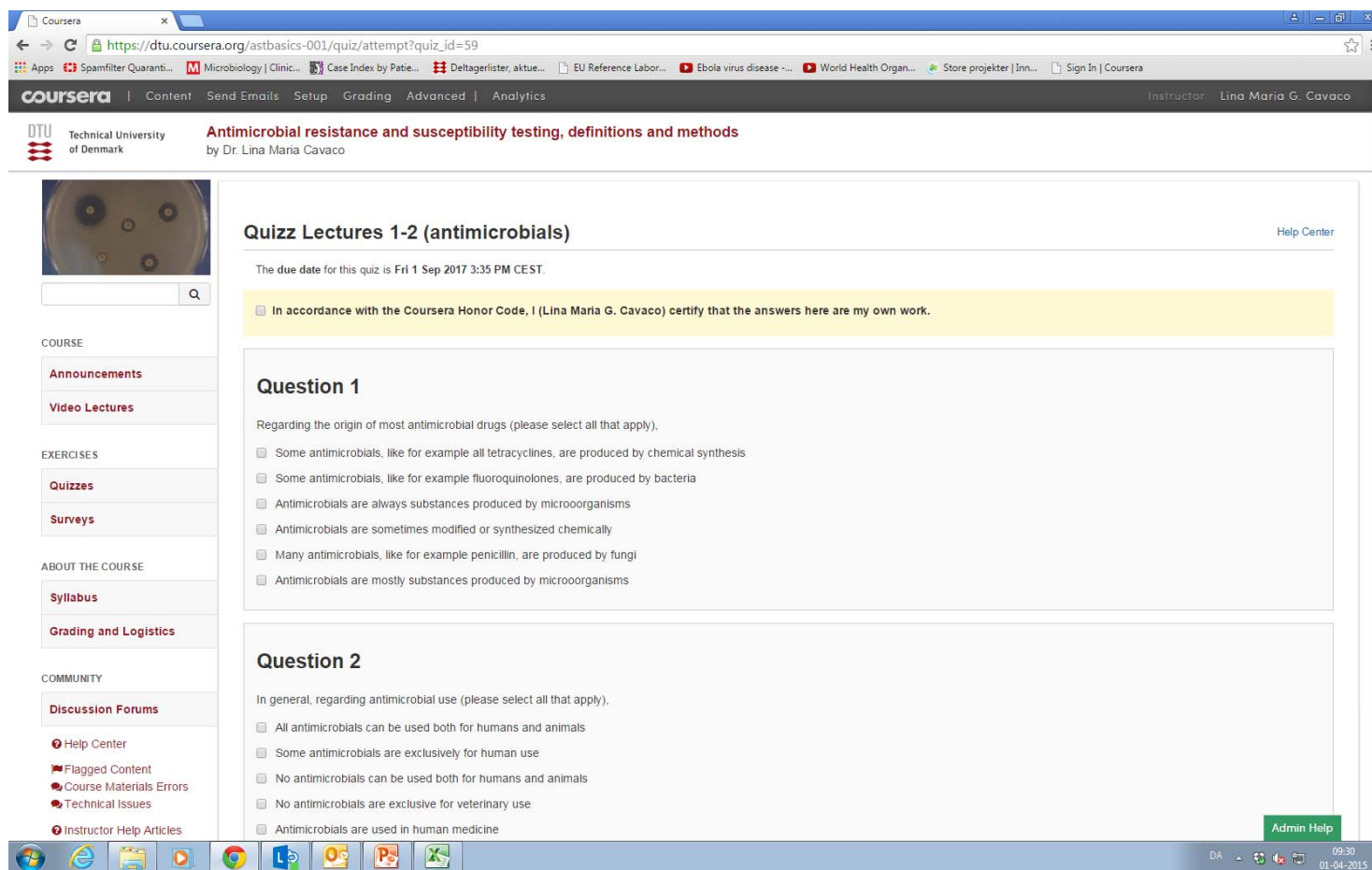


With in-video quizzes





# Quizzes




# Other contents

Technical University of Denmark  
Antimicrobial resistance and susceptibility testing, definitions and methods  
by Dr. Lina Maria Cavaco

**Surveys**

▼ Surveys

**Welcome Survey**  
Attempt Survey

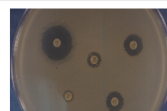
**Due Date** Sun 8 Oct 2017 7:41 PM CEST Apply late days  
If you submit after the due date (but before the hard deadline), your submission score will be penalized 50%.

**Hard Deadline** Sat 21 Oct 2017 7:41 PM CEST  
If you submit any time after the hard deadline, you will not receive credit.

**# of Attempts** 0 / 1

**Post-Course Survey**  
Attempt Survey

**Due Date** Sun 8 Oct 2017 7:41 PM CEST Apply late days  
If you submit after the due date (but before the hard deadline), your submission score will be penalized 50%.



## Syllabus

1. Antimicrobials and antimicrobial classification
  - a. Antimicrobials
  - b. Integrated approach- One Health
  - c. History
  - d. Origin of antimicrobials
  - e. Uses of antimicrobials
  - f. Classification
  - g. Antimicrobial targets and mode of action
  - h. Pharmacokinetics and Pharmacodynamics, basic definition
  - i. Bactericidal vs Bacteriostatic
  - j. Use of associations of antimicrobials

COURSE

Announcements

Video Lectures

EXERCISES

Quizzes

Surveys

Technical University of Denmark  
Antimicrobial resistance and susceptibility testing, definitions and methods  
by Dr. Lina Maria Cavaco

**Forums**

View your latest activity | Subscribe for email updates.

Welcome to the course discussion forums. Please read our forum posting policies before posting or starting a new thread.

Sub-forum	Latest Activity
<b>General Discussion</b> General discussion about the course, life, and everything under the sun.	Discussion forum (7 months ago)
<b>Study Groups</b> Find friends and arrange meet ups!	None
<b>Lectures</b> Specific questions about the lectures.	None
<b>Assignments</b> Specific questions and clarifications about the assignments.	None
<b>Course Materials Errors</b> Please use this forum to get help with potential errors in the lectures, assignments/grading, and other course materials.	None
<b>Technical Issues</b> Please use this forum to get help with technical issues and bugs such as error messages or difficulty submitting assignments.	None

**Your Subscribed Threads**

Discussion forum Started by Lina Maria G. Cavaco (instructor) · Last post by Lina Maria G. Cavaco (instructor) (7 months ago)	0 points	1 post
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**All Threads** Top threads Last updated

Discussion forum Started by Lina Maria G. Cavaco (instructor) · Last post by Lina Maria G. Cavaco (instructor) (7 months ago)	0 points	1 post
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The course pages contain also:

Pre and post surveys, course syllabus, a discussion for the participants, among other features





**Disclaimer:** Please note that the guidelines and methods referred or links included in these materials are updated when the videos lectures are produced and before the course is released, however these might become outdated with time.