

" ENVIRONMENTAL MICROBIOLOGY" (EESC30H3-S L01)

Instructor: Dr. Silvija Stefanovic

Lecture: Friday 1-3pm, IC320
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TA: David Aceituno Caicedo

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Taylor Hardacre

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Intent of the course:

This course examines the diversity of microorganisms, adaptations to special habitats, and their role in the ecosystem and geochemical cycling. Other topics include microbial phylogeny, physiological diversity, species interactions and state of the art methods of detection and enumeration.

Prerequisite: CHMA10H3 & CHMA11H3 & BIOB50H3 & BIOB51H3

Exclusion: (BGYC55H3)

Breadth Requirement: Natural Sciences

Suggested reading

³ (Q Y L U R Q P H Q W D , O a n d L L F e p p e r , C h a r e s R . G e r b a , T e r r y J . G e n t r y 2 0 1 4 , G o o g l e e B o o k

³ Microbial Ecology: Fundamentals and Applications Ronald M. Atlas, Richard Barthelme 1998
Benjamin/Cummings

Lecture notes:

The lecture slides will be posted in *.pdf format on the Blackboard. You will require Adobe Reader to open the files (available free of charge www.adobe.com)

Course email policy:

Email is not an effective way of teaching and email inquiries regarding course materials will not be answered. Dr. Stefanovic will be available during designated office hours to answer questions regarding course materials. The teaching assistant will be available during office hours to answer questions pertaining to the term assignments and seminars. If you have questions, then please see instructors during these times. It is for you so please do not hesitate to use it.

Grading:

Assignments (2):	20% (10% each)
Seminar	10%
Participation	5%
Midterm	25%
Final Examination	40%

Assignments:

You will have two individual assignments during the term, each worth 10% of the final grade. You will be able to access the problem sheets on the Blackboard at the dates detailed below. The assignments are due during the tutorials at the dates detailed below. More details on the assignments will be circulated during the first tutorial section on Jan. 16th / 17th. There is no tutorial on Jan. 9th / 10th.

<i>Topic</i>	<i>On the Blackboard</i>	<i>Submission Due</i>
Assignment #1	Jan. 16 th	Jan 30 th /31 st
Assignment #2	Mar. 13 th	Mar. 27 th /28 th

Seminar:

Teams of maximum two students will need to review ONE recent research paper (from the last 40 years) on the following topic: Environmental conditions and biogeochemical processes. Students need to prepare a short power point presentation (5 min) of these findings. The chosen articles have to be approved by your TA. Your TA will organize the seminar presentation schedule and instruct you on format and content guidelines. Tutorial on Jan 30th/31st. The presentations will take place during the tutorials Feb 6th/7th, Feb. 13th/14^d, Feb. 27th/28th, and Mar. 6th/7th. The rest of students are expected to participate in discussions following each presentation and submit hand written summary of the presentation for participation mark.

Midterm :

The 80 min long IN-CLASS midterm examination will worth

Lecture topics:

1. Introduction, ground rules, expectations and course structure.

Concept of microbial biogeochemistry
Microbial e