

Important dates and evaluation:

EVALUATION	Date
** 1% mini assignment 1	<i>in class, electronic group submission, for participation mark only</i> Monday, February 02
** 1% mini assignment 2	<i>in class, electronic group submission, for participation mark only</i> Monday, March 9
8% final assignment	<i>in class, hard copy</i> Monday, March 30
30% exam 1	<i>in ECS 123, 6:30 – 8:00 pm</i> <i>** note time and room</i> Monday, January 26
30% exam 2	<i>in ECS 123, 6:30 – 8:00 pm</i> <i>** note time and room</i> Monday, March 02
30% exam 3	<i>2 hrs, set by registrar</i>

** no formal mark is awarded for mini assignments. Assignments will be discussed in lecture and electronically submitted for participation marks. Material may appear on exams.

- Students are responsible for ensuring that they are properly registered in the course.
- ~~Students are expected~~ Students are expected to have met all pre/co-requisites for the course (see above).

Grading

and it factors into a student's GPA as 0. The maximum percentage that can accompany an N on a student's transcript is 49

Tentative Class Schedule:

topic	comments
1 Introduction	
2 DNA	
a) gene structure and expression	bacterial gene architecture, λ factors, comparison between prokaryotic and eukaryotic systems
3 RNA	
a) stability and processing	mRNA decay, processing stable RNA transcripts
b) riboswitches	overview of riboswitches
c) CRISPR	RNA silencing in prokaryotes
4 Protein	
a) two component systems	introduction to prokaryotic protein signalling
b) protein splicing	inteins and exteins, applications
c) translational surveillance	identification and destruction of aberrant proteins in prokaryotes
5 Environment	
a) heat shock	role of sigma factors, chaperones and proteases
b) envelope stress	antisigma factors
c) stationary phase	rpoS, λ^S
d) stringent response	response to stringent conditions, including λ and ppGpp
e) sporulation	role of phosphorylation and sigma factors
6 Bacterial Signalling	
a) environmental	chemotaxis and two component systems
b) community	quorum sensing and bacterial communication, importance of biofilms
7 Microbiome	how does the microbiome impact human health?
8 Budding yeast: a model eukaryote	Lifecycle, examples of conserved signal transduction pathways, molecular methods, genetic techniques and systems level high-throughput methods for insight into eukaryotic biology.

DEPARTMENT INFORMATION AND POLICIES

1. The Department of Biochemistry and Microbiology upholds and enforces the University's policies on plagiarism and cheating. These policies are described in the current University Calendar. All students are advised to read this section.
2. Cell phones, computers and other electronic devices must be turned off at all times unless being used for a purpose relevant to the class. Students having a cell phone, tablet, or computer on their person during an exam will be assumed to have it for the purpose of cheating.
3. Any recordings of lectures may only be performed with written permission of the instructor, and are for personal use only. The instructor retains copyright to such recordings and all lecture materials provided for the class (electronic and otherwise);