

**MOLECULAR GENETICS OF PROKARYOTES
LAB EXAM OUTLINE**

MBIO 4600

Date: Tuesday, November 29, 2011

Time: 2:30 pm

Duration: 1 h 30 min

Location: 207 Buller

Policy:

The lab exam is part of the final course examination. Department of Microbiology appeal procedures will be followed.

Format:

- Answer exam questions in pen - NO PENCIL
- Bring a calculator
- One word to medium length questions. Also selecting the correct answer type questions.
- answers acceptable in point form
- Similar format as sample lab exam at back of lab manual

Information responsible for:

- All information in lab manual (introduction, procedures, and appendix). If a question involved the *E. coli* genomic map, you would be given the map.
- Genetic Nomenclature. You do not need to memorize the genotype and phenotype specific for each strain. For example, you do not need to know that *E. coli* CSH110 is *supE* (Su^+) but must know what gene and phenotype is important for λ 1098 lytic phase and transposition. If given genotype of genes used in your lab procedures, you need to know the phenotype and important properties.
- All information in lab reports. Similar type of questions that are found in lab reports.
- All experiment expected results. Exact numbers are definitely not necessary.
- Data analysis. All calculations used in data analysis.
- When studying procedures such as plasmid DNA prep it is important to know and understand the main components of each solution. Memorizing P1, P2, N3 etc is of no value to you on the lab exam.
- Solution and media function. Exact composition of reagents, media, and solutions is not necessary unless important to experiment performing. Must understand function in experiment procedure. For example, MacConkey agar, you must know why this media does what it does with respect to media composition and phenotypic expression of the *E. coli* strain genotype.

Any questions? My office is 414B Buller.