BMS 1004 Lab Syllabus

Required Lab Manual:

If you are a BMS major please purchase the following lab manual:

- **Manual required** for lab is Biology Laboratory Manual 9\textsuperscript{th} Edition by Darrell Vodopich and Randy Moore. ISBN: 978-0077389697
  
  ANY EDITION ABOVE 9\textsuperscript{TH} EDITION IS ACCEPTABLE

If you are NOT a BMS major or ONLY plan to take BMS 1004, please purchase the following textbook:

- E-Books are available for purchase online

  - Course Name is: BMS 1004: Introduction to Cell and Molecular Biology

First day of class: YOU MUST PRINT AND SIGN THE SAFETY AGREEMENT LOCATED UNDER CONTENTS BEFORE THE FIRST DAY OF CLASS! And Wear a Lab Coat.

GRADING:

- Lecture: 55%
- Lab: 35%
  - Quizzes - 40%
  - Pre Lab Report/Post Lab Report – 40%
  - Practical – 10%
  - Technical – 10%
- Recitation: 10%

ATTENDANCE:

Attendance to the lab is **mandatory**: any missed labs may be made up during the same week of the lab missed. Make up labs are at the discretion of the Professor and BMS 1004 Coordinator. This is a PRIVILEGE and not a right. If permission is granted, you must make an appointment with the BMS 1004 Coordinator to reserve a seat in the make-up lab. Being absent **twice will constitute a failing grade**. Being late **twice will constitute an absence**.
Exercises:

A. At Home: Review Safety Powerpoint Posted On NYU Classes/ Print and Sign Safety Sheet
   1. The Microscope – Exercise 3. Determining Total Magnification; Understanding stage manipulation; the Letter “e” and Understanding Depth of Field; the 3 strings. pp26-27. Microbial diversity.
   2. Solutions, Acids and Bases: the pH scale – Exercise 5. Questions to be answered in prelab BEFORE CLASS: 1a-1c, 2a-2j and 3a-3c Procedures 5.1, 5.2 and 5.3. Questions to be answered AFTER CLASS: 6a-c and 7a-b.
   4. Biologically Important Molecules, Part II: Proteins and Lipids – Exercise 6. Procedures 6.3 and 6.5. Questions 5a-c, 6, 7 and 8a-8e + SPOT TEST
   5. Separating Organic Compounds: Column Chromatography and Paper Chromatography – Exercise 7 + Exercise 13; Procedures 7.1 and 13.1; Exercise 7 Questions 2a-b. Exercise 13, Questions 1 and 2a-e.
   8. Enzymes I: Temperature and Concentration
      Part I- Affects by Temperature – Exercise 11. Revised Procedure will be posted on NYU Classes (DO PRE LAB ACCORDINGLY) Questions 1a-j. Affects by Concentration – Exercise 11. Revised Procedure will be posted on NYU Classes (DO PRE LAB ACCORDINGLY)
   12. Genetics II – Exercise 17. Human Traits. Table 17.2, Determine the self genotype, phenotype and the possible gametes you can produce. Table 17.3, Phenotypes and Genotypes of Human Traits. Additional Table posted on NYU Classes (DO PRELAB ACCORDINGLY)

Final – Practical
Lab Grading Policies:
Lab (of Total Grade): 35%

Quizzes - 40% (40% of 35% of total Grade);
- Professor will prepare the quiz for each session. 10 Questions can be fill-ins, matchings, and short answers. **Questions are from Previous and Current labs.**

Pre Labs/Lab Reports – 35% (35% of 35% of total Grade)
- The TA will grade the pre-lab scoring 0-10 scale, the pre-lab need to show a full outline for the student to perform the lab. This outline must be thorough enough that the lab manual is not needed. The TA should sign each pre-lab at the beginning of class, within 15 mins of the start of class time. If the student enters the lab after 15min, they are deducted for lateness and a 20% penalty will apply (so the max pt granted will be 80)

Practical – 15% (15% of 35% of total Grade)
- This will be a cumulative final for the lab. There will be 25 stations, with 2 questions per station. These questions should be answered within 25 seconds for both questions. Questions will be related to techniques and theories learned in class.

Technical – 10% (10% of 35% of total Grade)
- This is a strictly subjective grade determined by the Professor and the TA. Preparedness to class, helpful to others, conscientiousness, alertness and show proficiency of the techniques required in each lab.