

BIO 100 -- PART III REVIEW SUGGESTIONS and OUTLINE

Use the approach suggested for Part I and II of our study, and as modified by your judgment as to what seems to be most effective. Be sure to use lecture notes, study notes, your quizzes, and answers to questions to capitalize on what has hopefully been a consistent effort over the period. You may want to expand the following outline to include major concepts in their proper context:

I. REPRODUCTION AND GENETICS

A. CELL REPRODUCTION

- > MITOSIS + CYTOPLASMIC DIVISION -- role and process
- > DNA and CHROMOSOMES -- genetic code in different forms/quantities
- > MUTATIONS -- clues to how DNA works in metabolism

B. ASEXUAL REPRODUCTION

C. SEXUAL REPRODUCTION

- > LIFE CYCLES -- conceptual framework to relate processes and time
- > MEIOSIS -- process and role

D. GENETICS

- > MENDELIAN GENETICS (principles and problems)
- > SKILLS AND PROBLEM-SOLVING
- > "OTHER HEREDITARY PATTERNS" -- Sec. 12-E
- > GENETIC VARIATION

II. COORDINATION

A. NERVOUS SYSTEMS

- > FUNCTION OF NEURONS
- > ORGANIZATION AND ROLE OF NERVOUS SYSTEMS

B. HORMONES AND HOMEOSTASIS

- > CONTROL OF BODY TEMPERATURE, BLOOD SUGARS
- > FEMALE REPRODUCTIVE CYCLE

C. HUMAN REPRODUCTIVE ETHICS -- conception control, genetic testing (pre- and post-natal)

III. LABORATORY

- A. LIGHT AND PLANT GROWTH -- environmental effects on growth and development
- B. LIFE CYCLES AND GENETICS
 - > sexual rep. in aquatic and land plants/animals
 - > genetic problems -- reinforce "Skills" in text
 - > natural selection -- survival/reprod. of favorable phenotypes
- C. NOTE: "Cells and Organelles Lab" – this laboratory should help in visualizing cells, nucleus, etc. as relates to mitosis and meiosis; however, the content *per se* will be included on the next (Final) exam instead.