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M: Course Objectives/Learning Outcomes

Upon completion of this course, students will:

1. Understand and be able to explain the relationship between genetics and evolution.
2. Be able to explain cell division in plants and animals, and to describe the significance of mitosis and meiosis to growth, development and reproduction.
3. Be capable of solving monohybrid and dihybrid problems, and problems involving multiple alleles and sex-linked genes.
4. Be able to explain the molecular basis and significance of proteins, nucleic acids, lipids and carbohydrates, and their relationship to cellular respiration and photosynthesis and general metabolism.
5. Be able to explain how DNA and RNA replicate and code for proteins, and analyse problems using the genetic code.
6. Understand and be able to explain how genes interact with the environment, and the role of mutations, meiosis and fertilization in changing the genetic composition of populations over time.
7. Be able to discuss the mechanisms of evolution, and to apply evolutionary concepts to the analysis of current environmental problems.
8. Be capable of conducting simple directed experiments and explaining the procedures and results.
9. Understand and be able to use biological principles in the discussion of current issues.

N: Course Content
The major topics in t

O: Methods of Instruction

This course involves four hours of lecture/tutorial/week and three ho

Course Designer(s)

Education Council/Curriculum Committee Representative

Dean/Director

Registrar

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