BIOLOGY INTRODUCTORY COURSE INFORMATION

I. BIOLOGY COURSES TYPICALLY TAKEN FALL OF FRESHMAN YEAR
   BIO 110 Principles of Biology I: Offered Fall, Spring, Summer
   BIO 112 Perspectives in Biology: Offered in Fall only

II. COURSE DESCRIPTIONS
   BIO 110 Principles of Biology I
      (CRN 13336 Instructor Dr. Michael Clark), (CRN 13347 Instructor Dr. Thomas Eickbush)
      The first semester of a year-long introductory course sequence. Topics include biochemistry, cell and molecular biology, cell reproduction, plant and animal physiology. Emphasis will be placed on quantitative learning, especially experimental approaches and data analysis. BIO 110 is designed for Biological Science majors, all pre-medical school tracks, and will prepare students for upper level biology courses.
      Prerequisites: Completion or concurrent enrollment in CHM 131 or equivalent

   BIO 112 Perspectives in Biology I
      (CRN 13655 Instructor Dr. David Goldfarb)
      The first semester in a year-long introductory course sequence. Material will include fundamental aspects of genetics, biochemistry, and molecular and cellular biology. This course will place emphasis on experimental approaches, data analysis and quantitative methods, and will include additional readings of original research papers. BIO112 will examine current topics in the news such as genetically modified organisms (GMO), human genome editing, vaccines, and embryonic stem cells. BIO 112 is designed for freshmen with strong biology backgrounds (see prerequisites).
      Prerequisites: Students with a score of 4 or 5 on the AP Biology test, or an IB score of 7. Completion or concurrent enrollment in CHM 131 or equivalent.

III. SIMILARITIES AND DIFFERENCES BETWEEN BIO 110 AND 112
   Similarities: Both courses are designed for majors and minors in the Biological Sciences as well as all premedical tracks. Employ problem-based, peer-led small group discussions and emphasize “experimental” approaches and the quantitative skills needed to understand biological research.
   Differences: Bio 112 is designed for freshman who have demonstrated knowledge of basic biological and chemical concepts. This prior knowledge will enable topics to be covered in greater depth, as well as provides the opportunity to cover additional current biological topics and to read original research papers.

IV. THE TWO SECTIONS OF BIO 110 - Which one is right for you?
   To reduce class size there are two sections of BIO 110. Both sections will cover the same topics and equally prepare students for upper-level courses in the biological sciences. The two sections will include mandatory weekly workshops, use the same textbook and have the same scheduled class time to allow students to transfer between sections in the first weeks of class.

   CRN 13336 (Instructor: Dr. Clark): Is open to freshmen and upper-class students. It is appropriate for students who took AP Biology in high school but scored below a 4 on the AP exam, or 7 on the IB exam. It is generally intended for students from high schools with strong science programs, or prior exposure to the natural sciences at this University.

   CRN 13347 (Instructor: Dr. Eickbush) NEW: This section is open to freshmen only. (Upperclassmen are required to obtain instructor permission to register.) It is a smaller class that offers more structured contact hours and individual help by requiring all students to participate in weekly 90-minute study sessions supervised by a biology graduate student. This section may be particularly helpful to students from high schools with weaker science programs (e.g. do not offer AP courses in the sciences) or have not taken a biology course since their freshmen year in high school.

   The purpose of the additional resources available in CRN 13347 (supervised study groups and mentoring) is to help transition students to college and build more effective college study skills. Section 13347 is NOT easier or designed for students at risk of performing at a lower level in the sciences.

   To better integrate the teaching of biology and chemistry, students in 13347 are strongly recommended to take the CRN16662 section of CHM 131 (Instructor, Dr. Ben Hafensteiner).

   If questions: please come to the Academic Open House Friday 9am – 1pm, or e-mail: Thomas.eickbush@rochester.edu