

# GUIDED SELF-PLACEMENT: BIOLOGY

## CONSIDER THE FOLLOWING BEFORE CHOOSING YOUR 1st BIOLOGY CLASS:

1. Biology 201, Biology 221 and Biology 227 are all 4 credit courses with 6 hours of in-class time per week, and another ~12 hours of study time!
2. Biology 201, Biology 221 and Biology 227 are all vocabulary intensive
3. It's helpful to have successfully completed high school Chemistry for Biology 201, Biology 221 and Biology 227
4. Having English language skills equal to English 101 experience will help with the intensive reading and writing required in Biology 201, Biology 221 and Biology 227.

## OPTION 1 - BIOLOGY 105

Students entering the following majors/programs want to consider BIOL 105 as their first biology class:  
HEALTH SCIENCES & HUMAN SERVICES PROGRAMS:

- Dental Assisting
- Medical Assisting
- Practical Nursing
- Radiologic Technology
- Surgical Technology

**BIOLOGY 105:** This is a one-term introduction to the structure and function of the human body. All systems of the body are studied. This course is required for various technical health career programs. It does not meet the requirements for biology degrees or four-year transfer programs. Corequisite: BIOL 105L

## OPTION 2 - BIOLOGY 201

Students entering the following majors/programs will want to consider BIOL 201 as their 1st biology class:

- BIOLOGY:
- Natural Resources
  - Ecology
  - Agriculture
  - Dance
- BIOLOGY-HEALTH SCIENCE:
- Pre-Pharmacy
  - Pre-Dentistry
  - Pre-Medicine
  - Pre-Veterinary

**BIOLOGY 201:** This is an introductory biology course for science majors. It will emphasize biological principles important in understanding living organisms to include: evolution, general biochemistry, cytology, Mendelian and molecular genetics, and ecology. Prior completion of High School Chemistry, CHEM 101 or CHEM 111 is strongly recommended. Students who believe they may be eligible for advance placement status in courses listing BIOL 201 as a prerequisite should see the Biology Department chair.

## OPTION 3 - BIOLOGY 227

Students entering the following majors/programs will want to consider BIOL 227 as their 1st biology class:  
HEALTH SCIENCES & HUMAN SERVICES PROGRAMS  
INCLUDING BUT NOT LIMITED TO:

- Registered Nursing
- Dental Hygiene
- Paramedic
- Surgical Technology

**BIOLOGY 227:** This course is an introduction to the study of structure (anatomy) and function (physiology) of the human body. The following systems are studied: integumentary, skeletal, muscular, and nervous. Unifying themes of homeostasis and whole-body functioning are emphasized. The laboratory sessions include donor body prosection. The course conforms to guidelines established by the Human Anatomy and Physiology Society. Prior completion of BIOL 201 is strongly recommended.

## OPTION 4 - BIOLOGY 221

Students entering the following majors/programs will want to consider BIOL 221 as their 1st biology class:

- HEALTH SCIENCES & HUMAN SERVICES PROGRAMS  
INCLUDING BUT NOT LIMITED TO:
- Food Science
  - Registered Nursing
  - Dental Hygiene

**BIOLOGY 221:** BIOL 221 is an introduction to the fundamental principles of microbial systems and to the information generated in microbiology that has enriched all segments of biology. The course has a public health/infectious disease emphasis. Many dimensions of the microbial world will be discussed that will include sub-cellular organization and functions, basic information about life cycles, cell division and genetics. The activities of microorganisms in disease, global elemental cycles, sewage disposal, industrial processes and food and dairy product manufacturing will be introduced. In addition, contemporary topics in microbiology will be covered.

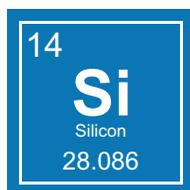
Are you ready for

**BIOLOGY 201?**

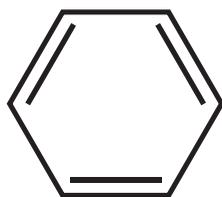
1. Do you understand what the C, the H and the O represent?



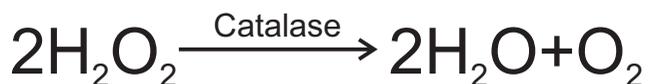
2. Can you determine what the atomic number is and how many electrons would be in the outer energy level?



3. Do you recognize this diagram and understand what it represents?



4. Do you know which is the reactant/substrate and which are the products?



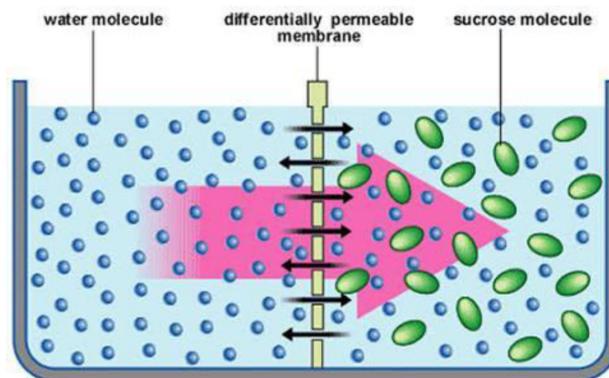
- If the content in the questions above is familiar then BIOL 201 would be a great choice for you!
- If the content in the questions above is not familiar, we suggest you talk to your advisor and consider CHEM 101 before enrolling in BIOL 201.

Are you ready for

**BIOLOGY 227 or**

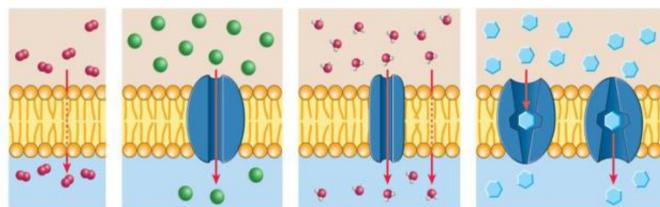
**BIOLOGY 221?**

1. Can you describe what is happening in the system shown below?



2. Can you name the 4 groups of biological macromolecules, their associated monomers and 1 function associated with each macromolecule?

3. Can you describe each diagram as either active or passive transport?



- If the content in the questions above is familiar then BIOL 227 and/or BIOL 221 would be a great choice for you!
- If the content in the questions above is not familiar, we suggest that you consider completing BIOL 201 (see column on the left) before enrolling in BIOL 227 and/or BIOL 221.