

# Biology 1111/1112 Information

The Center for Life Sciences Education is excited to announce two new courses in our catalog, Biology 1111 and 1112. Upon completion of both courses, students will have achieved the same outcomes and fulfill the same requirements as Biology 1113.

## Biology 1111 – Biological Foundations 1: Cells and Chemistry of Life (3 credit hours)

### Course description:

An introductory exploration of life's chemical and cellular foundations, including macromolecular and cellular structure and function, energetics, pathways, the nature of scientific endeavors, and metacognitive strategies. Includes a required weekly Peer Led Team Learning Workshop. Intended for student Majoring in STEM fields. Combined with Bio 1112, these courses will address content at similar depth and breadth as Bio 1113x.

### Prerequisite or concurrent:

- Math 1075.
- Not open to students with credit for 1113x.

## Biology 1112 – Biological Foundations 2: Molecular Machinery & Genetics (4 credit hours)

### Course description:

An introductory exploration of life's cellular and genetic mechanisms, molecular biology, and metacognitive strategies. Includes a required weekly Peer Led Team Learning Workshop. Intended for student Majoring in STEM fields. Combined with Bio 1111, these courses will address content at similar depth and breadth as Bio 1113x. This course fulfills the General Education Foundations: Natural Science requirements.

### Prerequisites:

- Biology 1111; Prereq or concurrent: Math 1148.
- Not open to students with credit for 1113x.



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## Why take Biology 1111 and 1112?

Why should a student take Biology 1111 and 1112 instead of Biology 1113?

The prerequisite requirements for Biology 1113 necessitate completion of Math 1148 and either concurrent enrollment or completion of Chemistry 1210 (or equivalent). Biology 1111 and 1112 make use of the extra course time to embed the chemistry content necessary for success in the course, eliminating the need for Biology 1113's chemistry prerequisite.

Students whose math placement scores do not allow them to enroll in Chemistry in their first or second semester may be delayed in their progress toward a life science degree. Biology 1111 and 1112 are designed to allow students to begin the science curriculum earlier in their academic career, often in the first semester. Doing so results in students both taking fewer 'filler' classes and experiencing less backlog of the more challenging Major courses late in their Program.

In addition to the Biology content itself, Biology 1111 and 1112 will engage students with the concept of *metacognition*, an exploration of how we as individuals identify what we do and don't know. The courses will teach students to recognize the effectiveness of their own study habits, reflect, and as necessary adapt new strategies.

## Peer-Led Team Learning (PLTL)

Both Biology 1111 and 1112 have embedded Peer-Led Team Learning Workshops in addition to the lectures and the 1112 laboratory component. PLTL workshops enhance biology students' already high-quality educational experience by providing a space with ten or fewer students in which they can spend more time actively engaging in discussion and debate, asking questions, and working together to answer open-ended problems that model real-world applications of the key biology concepts they're learning in lecture and lab.

## Scheduling

Biology 1111 will be offered every autumn semester while Biology 1112 will be offered in spring semesters. In 1111, students must register for both the lecture and workshop components. In 1112, students register for lecture, workshop, and a laboratory session.



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