

**University Committee on General Education
Proposed Catalog Changes
Effective Summer 2019**

J-3-c. Scientific Ways of Knowing (~~7~~8 cr , from two different disciplines, with at least one laboratory or field experience which include two accompanying labs OR 7 cr which includes a Core Science (CORS) course and one course with lab)

The purpose of this requirement is to develop a better understanding of the physical and biological world by learning some of the principles that explain the natural phenomena of the universe, the experimental method used to derive those principles, and their applications.

Study in this area is undertaken as part of the general education requirements in order to promote scientific literacy, that is, the ability to read and understand the science issues being debated in society. Scientific literacy is essential if citizens are to make informed judgments on the wide range of issues that affect their everyday lives. Students receiving passing grades in the natural and applied science courses of the general education curriculum will demonstrate competency in the following areas:

1. knowledge of scientific principles;
2. the ability to write clearly and concisely using the style appropriate to the sciences;
3. the ability to interpret scientific data;
4. the ability to analyze experimental design critically; and
5. the development of laboratory skills.

BIOL 102 & 102L	Biology and Society and Biology and Society Lab	4
BIOL 114	Organisms and Environments	4
BIOL 115 & 115L	Cells & the Evolution of Life and Cells and the Evolution of Life Laboratory	4
BIOL 154 & BIOL 155	Introductory Microbiology and Introductory Microbiology Laboratory	4
BIOL 250 & BIOL 255	General Microbiology and General Microbiology Lab	5
CHEM 101 & 101L	Introduction to Chemistry and Introduction to Chemistry Laboratory	4
CHEM 111 & 111L	Principles of Chemistry I and Principles of Chemistry I Laboratory	4
CHEM 112 & 112L	Principles of Chemistry II and Principles of Chemistry II Laboratory	5

CORS 205-297		3
ENVS 101 & ENVS 102	Introduction to Environmental Science and Field Activities in Environmental Sciences	4
EPPN 154 & EPPN 155	Microbiology and the World Around Us and Microbiology and the World Around Us: Laboratory	4
FCS 205	Concepts in Human Nutrition	3
GEOG 100 & 100L	Physical Geography and Physical Geography Lab	4
GEOL 101 & 101L	Physical Geology and Physical Geology Lab	4
GEOL 102 & 102L	Historical Geology and Historical Geology Lab	4
PHYS 100 & 100L	Fundamentals of Physics and Fundamentals of Physics Lab	4
PHYS 103 & PHYS 104	General Astronomy and Astronomy Lab	4
PHYS 111 & 111L	General Physics I and General Physics I Lab	4
PHYS 112 & 112L	General Physics II and General Physics II Lab	4
PHYS 211 & 211L	Engineering Physics I and Laboratory Physics I	4
PHYS 212 & 212L	Engineering Physics II and Laboratory Physics II	4
SOIL 205 & SOIL 206	The Soil Ecosystem and The Soil Ecosystem Lab	4