

CSB/SJU Integrated Science Major Requirements**LEVEL 1: Building a Scientific Foundation (16 Credits)**

All courses are 4 credits unless noted (12 credits must be completed with a GPA of 2.50 or higher to be accepted into the major).

_____ BIOL 101	_____ CSCI 140	_____ MATH 118 or 119
_____ BIOL 201	_____ CSCI 150	_____ MATH 120
_____ BIOL 202	_____ CSCI 160	_____ MATH 124
_____ BIOL 216	_____ CSCI 200	_____ NUTR 125
_____ CHEM 125 + 201	_____ CSCI 239	_____ NUTR 225/223
_____ CHEM 250 + 202	_____ CSCI 230	_____ PHYS 105 or 191
_____ CHEM 251 + 203	_____ ENVR 175	_____ PHYS 106 or 200
_____ CHEM 255 + 205	_____ ENVR 275	_____ PHYS 211
_____ CSCI 130		

LEVEL 2: First Integration Point (2-4 Credits)

Students will have an opportunity to construct a written analysis of an integrative scientific question or issue of their choice. They will explain and demonstrate the important role of oral communication. They will demonstrate their quantitative and information literacy to investigate this scientific issue and effectively synthesize concepts, scientific processes, and/or theories from at least two scientific disciplines to help understand and/or solve the scientific question or issue. Students should be prepared for active discussion and research using primary literature. Prerequisites: at least 16 credits from the Natural Science division in at least two different disciplines or permission of the instructor.

_____ ISCI 201 (2)
_____ ESSS 273 Health and Fitness (4)

LEVEL 3a: Building Depth and Breadth (20 credits)

No more than 12 credits from these 20 credits can be taken from one discipline. Note that some courses may have prerequisites in addition to the courses taken in Level 1. It is the student's responsibility to verify that all prerequisites are complete prior to enrolling in upper division coursework.

Biology (All 300 level BIOL courses excluding BIOL373A Exploring Medicine)

_____ BIOL 3_____
_____ BIOL 3_____
_____ BIOL 3_____

Chemistry (All 300 level CHEM courses)

_____ CHEM 3_____
_____ CHEM 3_____
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_____ CHEM 3_____

Computer Science (All 300 level CSCI courses)

_____ CSCI 3_____
_____ CSCI 3_____
_____ CSCI 3_____

Mathematics (All 300 level MATH courses)

_____ MATH 3_____
_____ MATH 3_____
_____ MATH 3_____

Physics (All 300 level PHYS courses)

_____ PHYS 3_____
_____ PHYS 3_____
_____ PHYS 3_____

Exercise Science

_____ ESSS306
_____ ESSS308

Nutrition

_____ NUTR 301 (Diet Health and Disease Prevention)
_____ NUTR 330 (Nutritional Biochemistry)
_____ NUTR 331 (Exercise Nutrition)

Environmental Studies

_____ ENVR 300 (Topics in Environmental Studies-Natural Science)
_____ ENVR 3XX (Science of Global Climate Change)

LEVEL 3b: Building Depth and Breadth: Additional coursework (8 credits)

An additional eight credits of upper division (300 level) coursework must be completed by the student. Numerous courses may count towards this requirement. The student may complete an additional eight credits of *natural science coursework*, which may or may not be included in the list above. In addition, students are encouraged to complete these credits with coursework from outside the natural science division IF THE COURSEWORK IS COHERENT WITH THE STUDENT'S TRACK, CONCENTRATION OR AREA OF STUDY. All upper division elective courses must be selected in consultation with the faculty advisor and approved by the Integrative Science chair.

____ XXXX 3 ____
 ____ XXXX 3 ____

LEVEL 4: Second Integration Point (2-4 Credits)

Students must complete one two or four-credit course intended to develop the ability to integrate and apply information from at least two disciplinary fields in order to solve a problem or explore complex issues in an original way. Developing effective written and oral communication and inquiry/analysis skills will also be a component of this course. These courses cannot also be counted toward the level 3a or level 3b requirement.

____ ISCI 301 (2)
 ____ NUTR 330 Nutritional Biochemistry and Assessment (4)
 ____ NUTR 331 Exercise Nutrition and Supplements (4)
 ____ ESSS 306 Kinesiology (4)
 ____ ESSS 308 Exercise Physiology (4)

LEVEL 5: Integrated Science Capstone (2-4 Credits)

In completing the Integrative Science Capstone, students will apply skills, abilities, theories, and/or methodologies gained through the Integrative Science curriculum to a new situation in order to solve a difficult problem or explore a complex issue in an original and interdisciplinary way, and effectively communicate the outcomes and implications of their work.

____ ISCI 378 (2)
 ____ BIOL 397 Internship (4)
 ____ ESSS 397 Internship (4)

Should students apply for distinction in the major, they would enroll in one of the following sets of research. They must obtain an A for distinction in this coursework:

____ ESSS Research

- ESSS 316 Research Methods (2 credits)
- ESSS 395 Research Seminar I (1 credit)
- ESSS 396 Research Seminar II (1 credit)

____ NUTR Research

- NUTR 380 Research Seminar I (1)
- NUTR 381 Research Seminar II (1)
- NUTR 396 Nutrition Research Capstone (2)