Integrative Science Major

2019-2020

Integrative Science-Health Science Advising Track

LEVEL 1: Building a Scientific Foundation (16 Credits)

______ BIOL 101 Foundations of Biology (4) fall only
______ BIOL 201 Intermediate Cell Biology and Genetics (4) or BIOL 216 Physiology in Practice (4) spring only
______ CHEM 125 Introduction to Chemical Structure (4) and CHEM 201 Purification and Separation Lab I (0-1)
______ NUTR 125 Concepts of Nutrition Science (4)

LEVEL 2: First Integration Point (4 Credits) Must be taken in sophomore year unless permission is granted from chair.

______ ESSS 273 Health and Fitness (4) fall only

LEVEL 3a: Building Depth and Breadth: Upper Division Natural Science courses (20 Credits with no more than 12 credits from one academic department) Course prerequisites are bracketed at the right, followed by the semester the course is typically offered. Please note that it is the student’s responsibility to make sure all prerequisites are complete prior to enrolling in upper division coursework.

______ BIOL 307 Microbiology (4) (BIOL 101, 201, CHEM 125, 250) fall
______ BIOL 317 Introduction to Biochemistry (4) (BIOL 101, 201, CHEM 125, 250, 255, 201, 202, 205) fall and spring
______ BIOL 323 Animal Physiology (4) (BIOL 101, 201) fall
______ BIOL 325 Human Anatomy and Physiology I (4) (BIOL 101, 201) fall
______ BIOL 326 Human Anatomy and Physiology II (4) (BIOL 325) spring
______ BIOL 320 Neurobiology (4) (BIOL 101, 201, with grades of C or better) spring
______ NUTR 301 Diet, Health & Disease Prevention (4) (NUTR 125, 323, BIOL 216) fall and spring
______ NUTR 302 Physiology of Weight Regulation (2) (NUTR 125, BIOL 201 or 216) spring
______ NUTR 320 Micronutrient Metabolism and Nutritional Supplementation (2) (NUTR 125, CHEM 125, 250) spring
______ NUTR 323 Public Health Nutrition (4) (NUTR 125) fall and spring
______ NUTR 326 Global Health and Nutrition (4) (NUTR 125, 323)
______ NUTR 330 Nutritional Biochemistry and Assessment (4) (NUTR 125, CHEM 125, 250 (or concurrent with 250)) fall
______ ESSS 306 Kinesiology (4) (ESSS 258 or BIOL 325 (or concurrent with 325); PHYS 105 or 191 recommended) fall
______ ESSS 308 Exercise Physiol. (4) (ESSS 273, ESSS 258 or BIOL 216 or 325, MATH 118 or 119 or 124 or PSYC 221 or SOCI 201) spring
______ ISCI 310 Applied Pathophysiology (4) (ISCI 201 or ESSS 273 & BIOL 201, 216, or ESSS 258, or equiv. human physiology course) fall

Note: No more than 12 credits from any one department

LEVEL 3b: Additional upper Division Courses (8 credits including Natural Science coursework and courses outside the Natural Sciences)

______ Any upper division Natural Science Course
______ Any upper division Natural Science Course
______ COMM 352 Health Communication (4)
______ PSYC 340 Physiological Psychology (4)
______ PSYC 342 Psychopharmacology (4)
______ PSYC 343 Health Psychology (4)
______ PSYC 360 Developmental Psychology (4)
______ PSYC 370 Clinical and Counseling Psychology (4)
______ PSYC 381 Abnormal Psychology (4)
______ PSYC 382 Neuropsychology (4)
______ SOCI 333 Sociology of Medicine and Health Care (4)
______ SOCI 337I Anthropology of Global Health Challenges (4)

LEVEL 4: Second Integration Point (4 Credits which cannot also be counted toward the level 3a or level 3b requirement)

______ ESSS 306 Kinesiology (4) (ESSS 258 or BIOL 325 (or concurrent with 325); PHYS 105 or 191 recommended) fall
______ ESSS 308 Exercise Physiol. (4) (ESSS 273, ESSS 258 or BIOL 216 or 325, MATH 118 or 119 or 124 or PSYC 221 or SOCI 201) spring
______ NUTR 330 Nutritional Biochemistry and Assessment (4) (NUTR 125, CHEM 125, 250 (or concurrent with 250)) fall
______ ISCI 310 Applied Pathophysiology (4) (ISCI 201 or ESSS 273 & BIOL 201, 216, or ESSS 258, or equiv. human physiology course) fall
LEVEL 5: Integration Science Capstone (4 Credits)

_____ ISCI 378 (4) spring only
_____ BIOL 397 (4) Internship
_____ ESSS 397 (4) Internship

Should students apply for distinction in the major, they would enroll in one of the following sets of research:

_____ ESSS Research
  • ESSS 316 Research Methods (2 credits) spring junior year
  • ESSS 395 Research Seminar I (1 credit) fall senior year
  • ESSS 396 Research Seminar II (1 credit) spring senior year

_____ NUTR Research
  • NUTR 380 Research Seminar I (2) spring junior year (fall senior year if abroad)
  • NUTR 381 Research Seminar II (2) fall senior year
  • NUTR 396 Nutrition Research Capstone (2) spring senior year

* No more than 12 credits can be counted toward another major or minor.

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Common Curriculum requirements:
FYS I & FYS II  | ES  | EL  | Theo 111 | FA  | HM & HM (different departments) | FAE  
GL 111, 112, 211 | GE  | IC  | TU  | NS  | MT  | SS  |